Transportation Library

FEB 12 1948

FOUNDED IN 1856

RAILWAY AGE

TRANSPORTATION LIBRARY

FEBRUARY 7, 1948

MORE THAN

105,000

CARS

ARE EQUIPPED

WITH...

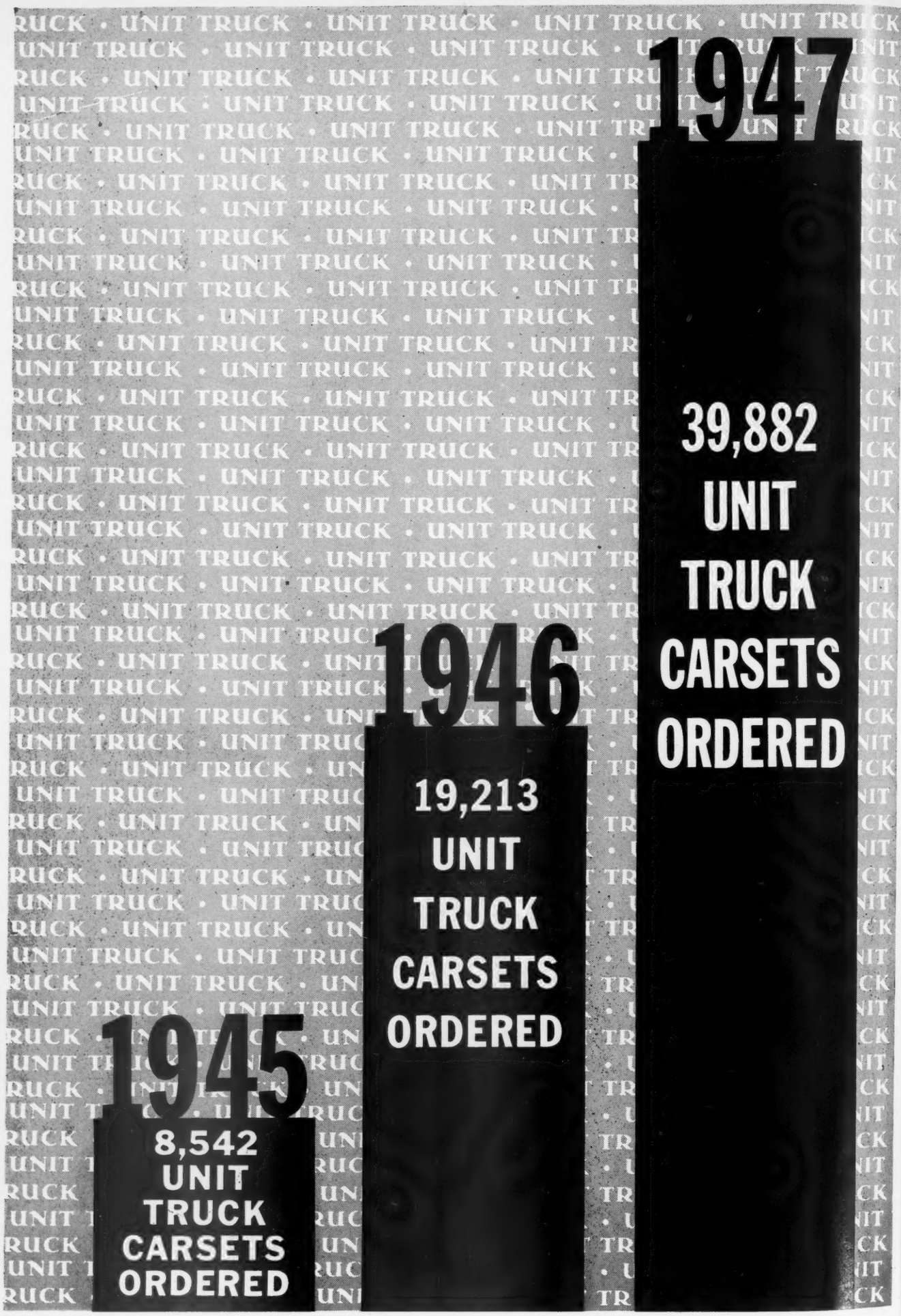
WINE

Cast Steel

HOPPER

FRAMES

THE WINE RAILWAY APPLIANCE COMPANY • TOLEDO 9, OHIO



Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 50 cents each. Vol. 124, No. 6.

Vol. 124 No. 6 February 7, 1948

RAILWAY AGE

With which are incorporated the Railway Review, the Railway Gazette, and the Railway-Age Gazette. Name registered in U. S. Patent Office.

IN THIS ISSUE

EDITORIALS

Importance of Investment in Prosperity 39
Fine Tools A "Must" for Good Craftsmen ... 40
New Boiler Developments 40
Training the Key to L. & D. Cut 41

NEW BOOK *44*

GENERAL NEWS *60*

OPERATING REVENUES & EXPENSES ... *84*

GENERAL ARTICLES

Traffic Congestion Relieved by C.T.C. 42
Workable Knowledge Is Aim of L. & N. Training Program 45
Financing Railroad Equipment Purchases, by Frederick C. Fiechter, Jr. 46
British Rebuild Engine-Shed Roofs with Precast Concrete Units, by R. L. M'Ilmoyle 50
Georgia Northern Diesel Saves $1,900 Monthly 54
W. H. Edwards Elected L. & N. E. President; R. V. White, Chairman 55
Locomotive Inspection Report 56

Published each Saturday by the Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia 23, Pa., with Editorial and Executive Offices at 30 Church Street, New York 7, N. Y., and 105 W. Adams Street, Chicago 3, Ill.

Washington 4, D. C.: 1081 National Press Building—Cleveland 13: Terminal Tower—Seattle 1: 1033 Henry Building—San Francisco 4: 300 Montgomery Street, Rooms 805-806—Los Angeles 14: 530 West 6th Street—Dallas 4: 2909 Maple Avenue.

Samuel O. Dunn, Chairman. James G. Lyne, Vice-President—Assistant to Chairman. Henry Lee, President. Roy V. Wright, Vice-President and Secretary. C. Miles Burpee, F. C. Koch, R. E. Thayer, H. E. McCandless, S. Wayne Hickey, Vice-Presidents. J. T. DeMott, Treasurer. Ralph E. Westerman, Arthur J. McGinnis, Assistant Treasurers.

C. Miles Burpee, Business Manager.

Subscriptions including 52 regular weekly issues, and special daily editions published from time to time in New York or in places other than New York, payable in advance and postage free. United States, U. S. possessions and Canada: 1 year, $6.00; 2 years, $10.00; other countries not including daily editions: in Western Hemisphere 1 year $10.00; 2 years $16.00; other countries 1 year $15.00; 2 years $25.00. Single copies, 50 cents each, except special issues.

H. E. McCandless, Circulation Manager, 30 Church Street, New York 7.

Railway Age is a member of Associated Business Papers (A. B. P.) and Audit Bureau of Circulation (A. B. C.), and is indexed by the Industrial Arts Index and by the Engineering Index Service.

PRINTED IN U. S. A.

"UNION" C.T.C.

concentrates control.....at Division Headquarters!

For even greater benefits from Centralized Traffic Control, railroads are concentrating that control at division headquarters.

One typical example of this trend involves two C.T.C. installations—106 and 142 miles long—on adjacent subdivisions. Recently, these installations were combined . . . their control machines brought together at division headquarters.

With this straightforward arrangement, C.T.C. provides continuous, accurate information as to positions of trains and availability of track in the 248-mile territory—and, permits division office personnel, with their overall knowledge of division operations, to obtain *maximum* advantages of this modern method of directing train movements by signal indication.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

NEW DEAL STILL LIVES: This issue's leading editorial presents a critical appraisal of President Truman's tax proposal, calling it a typically socialistic New Deal program. The proposal is that an income-tax reduction of $40 be made for each taxpayer, and that the resulting loss of some $3,200 million a year in revenue be recouped by increasing taxes on the profits of corporations. And the President plainly intended that the profits of corporations should be reduced by an amount equivalent to the increase in their taxes.

ECONOMIC IGNORANCE: This program betrays ignorance of the principal cause of great fluctuations in business and employment, which is fluctuation in the investment of capital and in the buying of durable goods in the making of investment. Recessions and depressions are started by declines of investment, causing declines in the buying of durable goods. Yet the President's scheme would diminish available investment capital at the principal sources of supply, i.e., the net earnings retained by business and large individual incomes also derived principally from the net earnings of business. This is the same economic philosophy which prevented recovery before the war; and it is now well calculated to cause a recession or depression.

L. & N. TRAINING PROGRAM: The Louisville & Nashville's training and educational program, which got under way last year, aims to equip that road's personnel with workable knowledge. Thus far it is a three-dimensional set-up, the separate, though complementary, facets being: Training of officers to serve as group leaders in other phases of the program; training of supervisors in human relations and in knowledge of their business; and training of public contact employees. As the program develops, other fields will be covered, for plans are now being made for putting approximately 2,000 employees and officers through courses each year. How it works is told in a feature article herein.

TRAIN EXPEDITER: The centralized traffic control system installed by the Southerrn on its 19-mile line between U. S. Junction, Ky., and Flatrock has so relieved congestion that average freight-train speeds over the section are up 5 m.p.h., the average saving in time being 0.63 min. per train-mile. Traffic over the line ranges from 40 to 50 train movements daily. An illustrated feature article herein describes the installation, which includes two separate protective arrangements for motor-car operation.

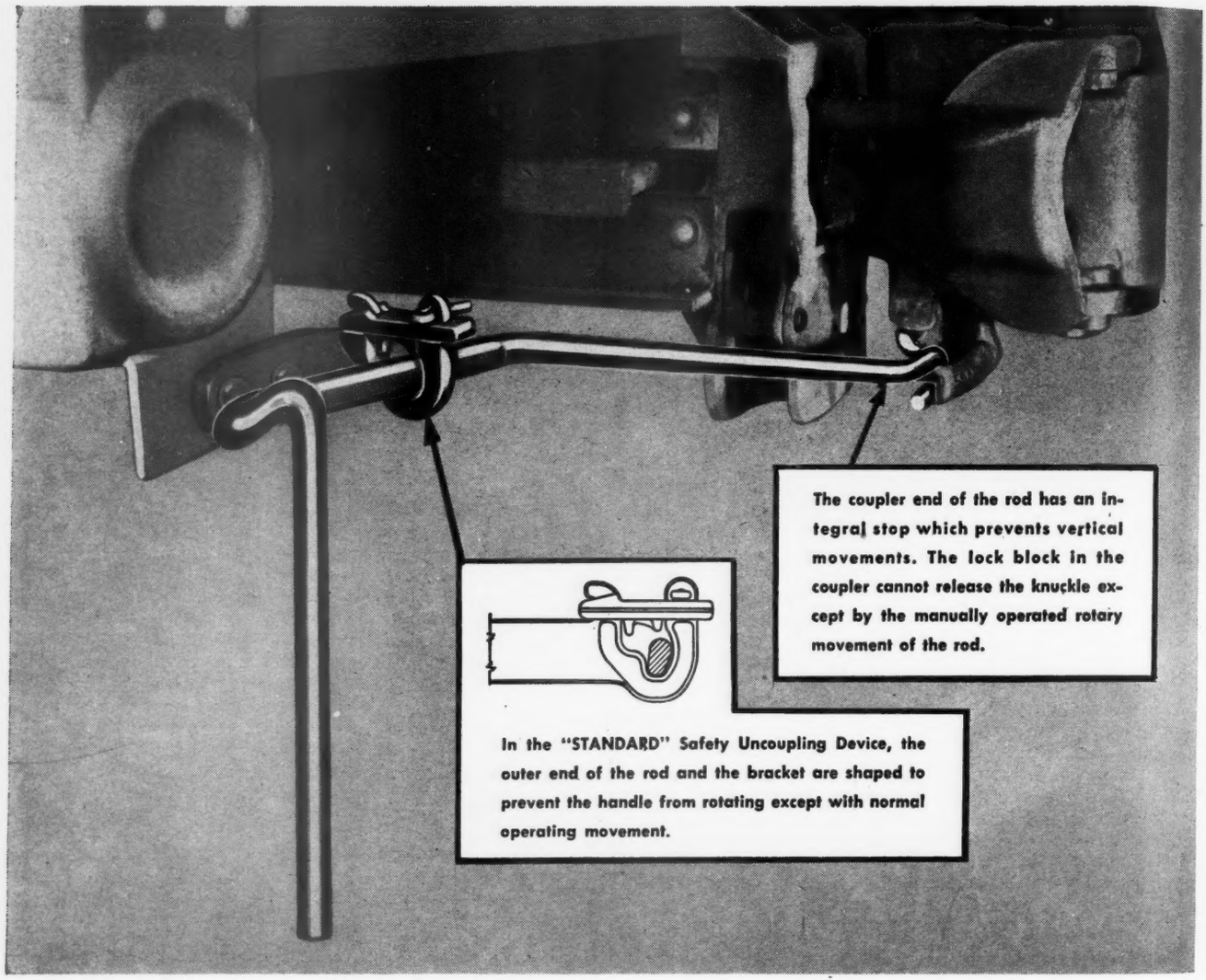
FINANCING EQUIPMENT: The prospects for continued large equipment purchases will keep railroad financial officers on the lookout for the most advantageous financing procedures. A detailed study of the matter has been made by Frederick C. Fiechter, Jr., a member of the bar and an officer of the Pennsylvania Co. for Banking & Trusts. In one of this issue's feature articles, Mr. Fiechter presents a comparison of the equipment-trust and conditional-sales methods in the light of changing interest rates.

LOCO INSPECTION REPORT: The annual report of Director John Hall of the Bureau of Locomotive Inspection is reviewed in one of this issue's feature articles. It reflects the gradual changes that are taking place in the character of motive power on the railroads. For the first time in several years the number of steam locomotives for which reports were filed and the number inspected have taken a decided drop, while the number of engines in the "other-than-steam" category shows a continuing increase. The percentage of steam locomotives found defective remained at 11 per cent, while the defectives of other types amounted to 4.8 per cent—down 0.2 per cent from fiscal 1946. Boiler explosions are still a major cause of accidents, and anxiety to avoid stalling and to keep trains moving remains one of the important factors leading to such explosions.

CONCRETE ENGINE-SHED ROOFS: Before the London, Midland & Scottish became the London Midland Region of the nationalized British Railways, it completed a program which involved rebuilding the roofs of 41 engine sheds (28 rectangular structures and 13 roundhouses) with precast concrete units. R. L. M'Ilmoyle, the road's assistant engineer of structures, describes the work in one of this issue's illustrated feature articles.

R. B. A. PROGRAM: The Railway Business Association has asserted that its promotional work on behalf of the railroad industry will continue, as it has in the past, to emphasize the need for policies which will enable the carriers to earn an adequate income. The assertion was made in a booklet which the new R. B. A. president, P. Harvey Middleton, has issued to outline the stand which the association will take in the future with respect to railroad legislation and regulation. Mr. Middleton's statement is reported in further detail back in the News Department.

CAR-PRODUCTION TARGET: That there is now some doubt in government circles about increasing the present freight-car program from 10,000 to 14,000 cars per month was indicated this week by Secretary of Commerce Harriman. While he called the freight-car program the "first objective," Mr. Harriman nevertheless spoke of studies being conducted to determine whether the 10,000-car target can be raised without causing undue diversion of steel from three other "areas of priority"—housing, farm machinery, and petroleum equipment. Mr. Harriman's comment is reported in a news story herein.


The coupler end of the rod has an integral stop which prevents vertical movements. The lock block in the coupler cannot release the knuckle except by the manually operated rotary movement of the rod.
In the "STANDARD" Safety Uncoupling Device, the outer end of the rod and the bracket are shaped to prevent the handle from rotating except with normal operating movement.

"STANDARD" SAFETY UNCOUPLING DEVICE

FULFILLS
A.A.R. AND I.C.C. SAFETY APPLIANCE REQUIREMENTS.
USED WITH
BOTTOM OPERATED COUPLERS
ON ALL TYPES OF FREIGHT CARS.

SERVICEABILITY RELIABILITY ENDURABILITY

STANDARD
RAILWAY EQUIPMENT CO.

310 South Michigan Avenue
Chicago 4, Ill.

247 Park Avenue
New York 17, N. Y.

PLANTS — Hammond, Ind.
New Kensington, Pa.

RAILWAY AGE

EDITORS . . .
Samuel O. Dunn and James G. Lyne
MANAGING EDITOR . . .
Roy V. Wright
ASSISTANT MANAGING EDITOR . . .
C. B. Tavenner
WESTERN EDITOR . . .
Neal D. Howard
WASHINGTON OFFICE . . .
Walter J. Taft
Sherman Davis
TRANSPORTATION DEPARTMENT . . .
William H. Schmidt, Jr.
Robert G. Lewis

MECHANICAL DEPARTMENT . . .
C. B. Peck
E. L. Woodward
H. C. Wilcox
C. L. Combes
G. J. Weihofen
ENGINEERING DEPARTMENT . . .
M. H. Dick
Walter L. Turner, Jr.
Henry E. Michael
PURCHASES & STORES DEPARTMENT . . .
John W. Milliken
EQUIPMENT & FINANCIAL NEWS . . .
Fred C. Miles

SIGNALING AND COMMUNICATIONS DEPARTMENT . . .
John H. Dunn
Maurice Peacock
ELECTRICAL DEPARTMENT . . .
Alfred G. Oehler
WESTERN NEWS DEPARTMENT . . .
George R. Johnson
ASSOCIATE EDITOR . . .
Charles Layng
LIBRARIAN . . .
Edith C. Stone
EDITORIAL ASSISTANT . . .
Elaine C. Farrar

IMPORTANCE OF INVESTMENT IN PROSPERITY

The economic ignorance usually shown by men in high places in public life is illustrated by President Truman's proposals for changes in federal taxes. His proposals are, in brief, (1) that a reduction of $40 a year be made for each taxpayer and dependent and that (2) the resulting loss of some $3,200 million a year in revenues be recouped by increasing taxes on the profits of corporations. He plainly intended that the profits of corporations should be reduced by an amount equivalent to the increase in their taxes.

This typically socialistic New Deal program betrays ignorance of the *principal* cause of great fluctuations in business and employment. This principal cause is fluctuation in the investment of capital and in the buying of durable goods involved in the making of investment. Business is good and employment large when, as at present, *both consumer buying and investment* are large. Recessions and depressions are not started by declines of consumer buying, but by declines of investment, causing declines in the buying of durable goods. The declines in buying of consumption goods that occur are principally due to the declines of employment and consumer purchasing power caused by the decline of investment.

What, then, starts the declines of investment? Either (1) lack of enough available capital for maintaining investment or (2) increasing unwillingness of those having or controlling capital to invest it. The principal sources of capital are net earnings retained by business and invested in its plants and large individual incomes also derived principally from the net earnings of business. Capital is invested solely to get a return from it; and whatever impairs the prospect of a satisfactory return on capital inevitably reduces the total amount of it invested.

The theory of the New Dealers always has been that the purchasing power of consumers determines the level of business and employment. Hence, they devoted themselves before the war to trying to increase the purchasing power of consumers, regardless of the effect on profits, with the results of preventing a revival of investment and production and keeping an average of 8,500,000 unemployed. President Truman's proposal to reduce taxes $40 for each taxpayer and each of his dependents assumes that this would help maintain business by increasing consumer purchasing power. But his plan, by also increasing the taxes of corporations and thus reducing their profits, and by failing to reduce taxes on large incomes, would reduce the capital available and the incentive to invest it. The resulting decline of investment would reduce production and employment in the durable goods industries and the power of those employed in these industries to buy consumer goods.

Continuance of a large investment of capital in housing and in expansion of the plants of industry and transportation is essential to remedying the shortages of the many things that the people want. Continuance of this large investment is also essential to continuance of present high-level employment. Measured in dollars, profits have been high during the last two years in almost all industries, excepting the railroad industry; but a dollar of profits, like every other dollar, will now buy less than 60 per cent as much as before the war. Hence, total dollar profits must be about twice as large as before the war to provide enough capital to pay for an equivalent amount of labor and durable goods, for expansion.

President Truman's tax proposals, which were concocted by a group of New Deal bureaucrats, show that the same economic philosophy now prevails in the administration which prevented recovery before the war; and it is as well calculated to cause recession or depression as it was to prevent recovery.

FINE TOOLS A "MUST" FOR GOOD CRAFTSMEN

The maintenance-of-way departments of the Class I railroads spent approximately $1,210,000,000 last year. Indications are that they will spend even more in 1948. Of this huge sum, more than 50 per cent will again go for labor, that is, in the form of wages paid to workers engaged in applying materials or in performing maintenance operations on materials already in place. In expending any such sum as this for labor, a lot of money will be wasted unless the forces doing the work are properly equipped for the job.

A passion for fine tools and for taking the proper care of them is an almost universal characteristic of top-notch skilled craftsmen. A good carpenter, for instance, would not think of going to work without a complete set of high-quality tools, and he will be no less insistant that his saws, chisels, and planes are kept sharpened, and otherwise in good working order, at all times. Such workers realize the futility of trying to do a good job with an incomplete set of inferior tools, or even with an adequate number of good tools that have been allowed to get dull or otherwise out of condition. For this reason they do not begrudge the time and effort needed to keep tools in good working order.

The maintenance-of-way departments of the railroads are, in a sense, skilled craftsmen—or should be. To do their work with the greatest efficiency they, too, need the proper tools—and of those available to them the one of greatest proven value is that composite implement known as work equipment. Yet, how many maintenance-of-way departments, like other good craftsmen, can say that they have this tool available in the proper numbers and types and that the necessary time and effort are devoted to the task of keeping it in first-rate working condition?

NEW BOILER DEVELOPMENTS

Directing attention again to one of the steam locomotive's competitive handicaps, its boiler, four engineers recently have suggested means for reducing boiler maintenance costs and increasing boiler efficiency. Three of the engineers presented their ideas at the annual meeting of the Master Boiler Makers' Association in Chicago last September; the fourth discussed the problem at the annual meeting of the American Society of Mechanical Engineers at Atlantic City in December.

At Chicago, A. J. Townsend, vice-president, engineering, Lima-Hamilton Corporation, introduced a double-Belpaire boiler design. The principal objective was to save fuel through the greater boiler capacity made possible by the increase in the heating surface and gas area of this design. The reason added capacity is an effective means of saving coal is that the pounds of water evaporated per pound of coal drops off rapidly as the evaporation approaches the boiler's maximum evaporative rate. Mr. Townsend introduced a curve, true of all boilers in general, which showed that an evaporation of 4½ lb. of water per pound of coal is obtained at maximum boiler output as compared to 6¼ lb. of of water per pound of coal at 70 per cent of capacity.

The second presentation at Chicago was made by Arthur Williams, vice-president, the Superheater Company, who proposed a new locomotive boiler design in which a pump circulates the water from boiler drums to the steam generating tubes. Some of the advantages of the forced-circulation design, he said, were good water circulation at any rate of heat transfer, a flexibility in the possible arrangements of the steam-generating tubes, easier maintenance because elements can be replaced by cutting them out and rewelding new elements in place, freedom from scale deposits, and an increase in firebox volume with improved combustion. The practicability of this type boiler is indicated by Mr. Williams' descriptions of forced-circulation boilers now in power-plant service.

The third proposal at Chicago was made by H. L. Miller, metallurgist, railroad development, Republic Steel Corporation. He advocated the use of

a "chrome iron" for firebox construction, with carbon-nickel-steel staybolts, seal welded and set with explosives. He said that the increasing rate of side sheet replacement on boilers operating at 300 lb. per sq. in. as compared with those operating at 250 lb. per sq. in. is an indication that the higher pressure has gone beyond the economical maintenance limits of the present plate and staybolt type of construction. He also proposed a firebox design using standard I-beam sections welded together. Resembling in many respects the old Jacobs-Shupert firebox, this new design requires tests to determine its value.

At Atlantic City, the late Fred D. Huston, International Nickel Company, covered several possible modifications in present design practices for the purpose of obtaining the greater benefits of improved materials and methods of construction. He developed with considerable data the advantages of using staybolts of smaller diameter, with closer spacing, and the value of using alloy-steel sheets and staybolts—now that staybolt leakage, a basic cause of firebox failures, can be eliminated by seal welding. He discussed explosively set staybolts and fusion-welded staybolts, predicting that the latter will eventually replace all threaded staybolts.

All of these ideas are worthy of study, because the maintenance costs and operating efficiency of the steam-locomotive boiler will continue for many years to have an important bearing on operating costs.

TRAINING THE KEY TO L. & D. CUT

Freight loss and damage due to "error of employee" showed a greater increase in the first half of 1947, compared with that of 1946, than any other classification of cause or condition, as the table herewith indicates. "Error of employee" covers loss and damage resulting chiefly from misloading, misrouting, failure to divert or reconsign, and faulty "paper work" generally. While this category of loss and damage accounted for but 0.9 per cent of total loss and damage in terms of dollars, the fact that it outranks all categories in extent of increase compared with 1946 is significant.

But this category accounts for only a fraction of loss and damage resulting from railroad employees' errors or inefficiency. "Unlocated loss," for example, which accounts for 13.2 per cent of total loss and damage, and "unlocated damage," accounting for 53.7 per cent, result in many cases from failure of railroad employees to inspect freight carefully, to load and route it correctly, or to handle it safely. The category, "improper handling in train, yards or stations," accounting

Which Causes of Loss and Damage Increased the Most? First 6 months 1947, compared with 1946

Category	Per Cent Increase
Error of employee	82.6
Concealed loss	80.7
Theft, other than entire package	63.6
Concealed damage	57.1
Improper handling	48.8
Delay	42.5
Train accidents	39.6
Loss of entire package	39.5
Theft entire package	38.9
Unlocated damage, freight not in pkgs.	34.0
Freezing or heater failure	31.8
Loss, other than entire package	25.2
Unlocated damage, freight in packages	24.8
Defective or unfit equipment	20.7
Improper refrigeration or ventilation	18.4
Fire, marine and catastrophes	2.8*

* Decrease.

for 2.8 per cent of the total l. & d. bill the first half of last year, is also a matter of employee inefficiency. Losses due to improper handling increased almost 49 per cent over 1946.

Lest supervisors assume a defeatist attitude with regard to the possible improvements of these conditions, having due regard to the widespread "don't-give-a-damn" attitude assumed by many employees handling freight, it would be well to recall two historic facts. In the first place the railroads, 25 years ago, succeeded in reducing the ratio of freight loss and damage to freight revenue to a normal of about one-fifth of what it was just after World War I. They can do so again. Secondly, in their efforts to promote safety for employees and passengers the railroads, by dint of a high-pressure, conscientious, all-inclusive safety campaign, starting about 1912, succeeded in making themselves the safest mode of transportation known, despite the fact that their safety record prior to the campaign was a palpable disgrace.

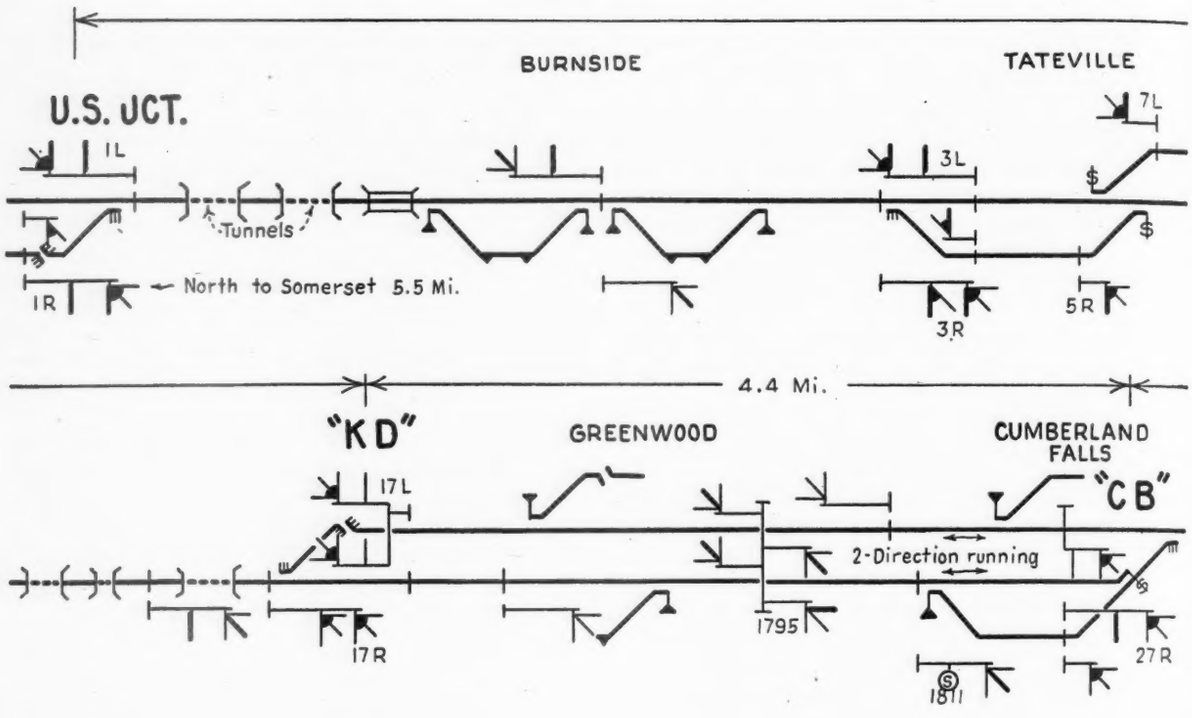
Like safety—claim prevention is primarily a matter of employee training. The railroads have the precedent, the facts and the evident need for immediate action.

"Economic collapse of transportation in the United States and government ownership of this industry are inevitable under present national policies and the outmoded system of Federal regulation.

"In spite of the largest volume of peacetime traffic, only a few of the hundreds of common carriers are able to produce a net return which will attract private capital to this industry. Present regulation promotes vast wastes of capital in transportation—both government and private—duplications in facilities, services, and overheads.

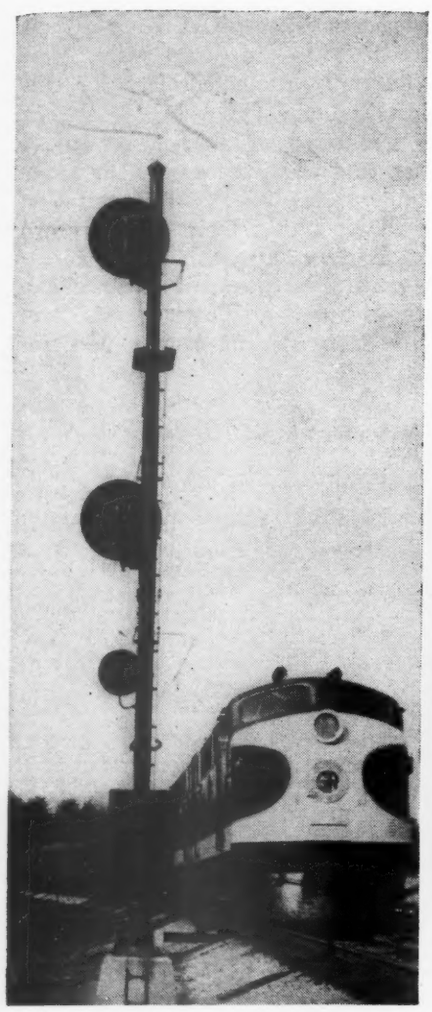
"The whole structure of Federal regulation must be overhauled and modernized to keep pace with the fast changing economy. To develop order out of chaos in this industry represents the foremost domestic issue confronting the leaders of agriculture and industry in all areas of the country. It is not a railroad, highway, or airway problem. It is a vast public-interest economic problem and must be dealt with from that viewpoint. If government ownership comes, it will be because of the default of the leaders of the enterprise system."

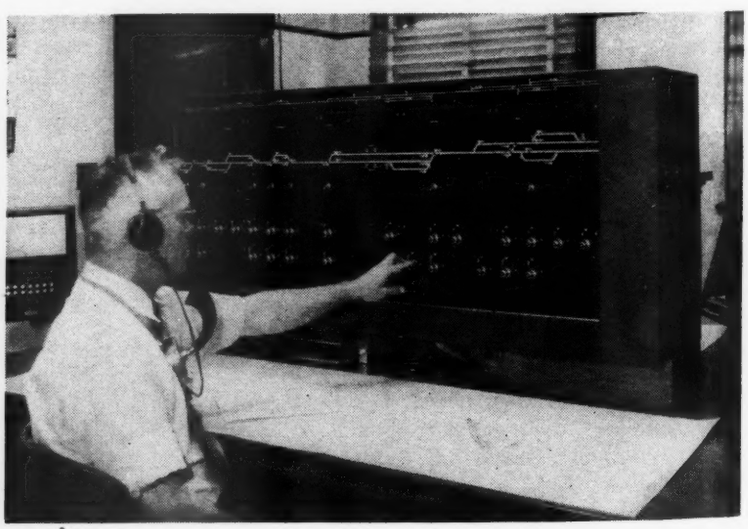
—Donald D. Conn, executive vice-president of the Transportation Association of America, in a February 5 address before the Colorado Mining Association.



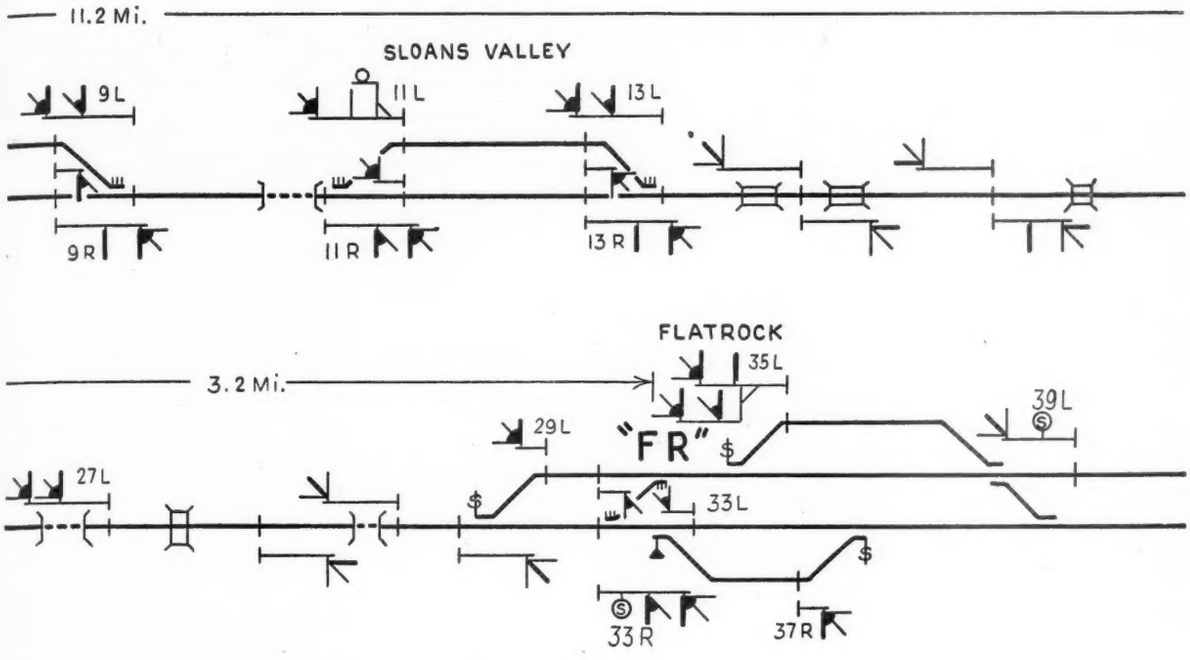
TRAFFIC CONGESTION RELIEVED BY C.T.C.

Project on 19 mi. of the Southern in Kentucky keeps trains moving in territory with heavy grades and curvature and many bridges and tunnels





The control machine is located in the dispatcher's office at Somerset, Ky., 5.5 mi. north of U.S. Junction. Left—Southward station-entering signal 33R, with take-siding indicator, at the north end of Flatrock



Track and signal layout of the new C.T.C. territory between U.S. Junction, Ky., and Flatrock

As a means of expediting train movements in a congested section of its main route between Cincinnati, Ohio, and Chattanooga, Tenn., the Southern has installed centralized traffic control on 19 mi. between U.S. Junction, Ky., and Flatrock, the control machine for which is located in the dispatcher's office at Somerset, 5.5 mi. north of U.S. Junction. Comparative studies of train operation before and after the installation reveal that the average running time for all freight trains through the territory has been reduced 12 min., and that the average freight-train speed has been increased approximately 5 m.p.h., resulting in an average saving of 0.63 min. per train-mile.

The line between Cincinnati and Chattanooga is double track north from U.S. Junction toward Cincinnati, and south from Flatrock toward Chattanooga. The second main track, however, was not added on 14.4 mi. of the 19 mi. between U.S. Junction and Flatrock because that territory includes eight single-track tunnels, as well as single-track steel bridges and trestles over the Cumberland river and at Sloans Valley. The segment involved in this project is single track from U.S. Junction to "KD" tower, 11.2 mi. A 4.4-mi. section of double track extends between "KD" Tower and "CB" Tower, with single track 3.2 mi. to "FR" Tower (Flatrock), from which point double track extends south. From the Cumberland River bridge, about 1 mi. south of U.S. Junction, the grade ascends southward most of the way to "FR" Tower, although there are sags through Sloans Valley and "CB" Tower. In general, the grade ranges up to about 1.1. per cent ascending south. Between U.S. Junction and "FR" Tower there are 51 curves and very little tangent track. Most of the curves range between 2 deg. and 6 deg., with one 8-deg. curve.

Mechanical interlockings were previously in service at ends of double track; 8-lever plants being located at U.S. Junction and "KD" Tower, with a 16-lever plant at "FR" Tower. At "CB" Tower, spring switches, together with home signals, were in service, which were controlled remotely from a set of table levers at "FR" Tower. At Tateville there was, and still is, a lap siding arrangement with two sidings, each having a capacity of 75 cars. At Sloans Valley, the siding will hold 57 cars. Automatic block signaling and train stop were in service throughout. Train movements were authorized by timetable and train orders except between "CB" Tower and "FR" Tower where train operation was by signal indication.

The schedules include five passenger trains and five freight trains each way daily. Numerous sections of regular and extra trains also are operated, so that the total traffic ranges from 40 to 50 train movements daily. Because of the heavy grades and curvature, as well as the numerous tunnels, the speed of trains is somewhat reduced in this territory. Under timetable and train-order operation, trains were frequently delayed at blind sidings at Tateville and Sloans Valley. Thus the logical solution was to install centralized traffic control throughout between U.S. Junction and "FR" Tower.

This project includes new electric switch machines and searchlight signals to replace the previous interlockings at U.S. Junction, "KD" Tower, "CB" Tower and "FR" Tower. A special feature included in the installation is that both main tracks between "KD" Tower and "CB" Tower are signaled for train movements in both directions. At the lap sidings at Tateville, power switch machines and C.T.C. controlled signals were installed at the outlying switches, as shown in the diagram, so that trains, to take siding, enter at the first switch they encounter. At the lap, spring switches and leave-siding dwarfs were installed. Power switch machines and C.T.C. signals

were installed at both ends of the single siding at Sloans Valley. Electric locks were installed on all handthrow stands on the main track.

Signals and Control Machine

Power switch machines were not installed on the siding at "CB" Tower because it is used infrequently. At the north switch, the hand-throw stand is equipped with an electric lock. Signal 1811 has a lower "arm" which is a take-siding indicator. Ordinarily this indicator is dark, but if the dispatcher wants to direct a southbound train to enter this siding, he sends out a control that causes the letter "S" to be displayed on this indicator, and at the same time an Approach aspect is displayed on the distant signal 1795. These aspects authorize and direct the train to stop, throw the hand-operated switch and enter the siding. At the south end of this siding is a leave-siding dwarf signal and a spring switch, so that a train can depart without delays to operate a hand-throw stand. This same general arrangement, of take-siding indicator, hand-throw entering switch and spring departing switch, applies also to two of the sidings at Flatrock. The north siding at Flatrock is an extension from the second main track. At the north end of this siding is a leave-siding dwarf and a spring switch.

The new power switch machines, the signals at these switches, together with those at spring switches, and the electric switch lock at "FR" Tower are controlled from the new C.T.C. control machine in the dispatcher's office at Somerset. The illuminated track diagram on this machine has lamps which automatically indicate the locations of trains on all portions of main tracks, as well as on the sidings at Tateville, Sloans Valley, "CB" Tower and "FR" Tower. Thus the dispatcher can watch the progress being made by each train, and he can control the power switches and signals to authorize trains to make meets on close time. For example, on October 19, northbound passenger train No. 4 made a non-stop meet at Sloans Valley with southbound freight train No. 59, which is a fast Diesel freight. The dispatcher said that if the previous practice of train orders had still been in effect, he would have held train No. 4 at "KD" Tower until the freight arrived. Thus, in this example, the C.T.C. saved about 24 min. for train No. 4. Similar instances are occurring every day, and the project is becoming more and more useful as the dispatchers and enginemen become better informed about the movement of trains by signal indication and C.T.C. control.

Protection for Motor Cars

Because of the topography of the territory, with its heavy grades, stiff curves and numerous tunnels and trestles, additional protection was added for motor-car operation. Two separate protective arrangements were provided. First, indicator lights were installed at certain places to acquaint motor-car operators as to traffic conditions ahead. In addition, indicator lights were installed at various locations on the pole lines. Second, it was thought necessary to provide some means of protecting motor cars against opposing motor cars in certain sections of the territory where tunnels and trestles are prevalent. This was done by means of manually operated push buttons coupled with visible indicators. All such indicators are normally de-energized. However, when a motor car desires to move through a protected section of track, the motor car operator manipulates the push-button switch which clears up the indicators through the territory involved. Outstanding instructions require opposing motor cars to wait at the end of the block, when the route has been manually set up by another motor car.

This C.T.C. installation was planned and installed by signal forces of the Southern, under the jurisdiction of L. C. Walters, assistant to vice-president, signal and electrical, and H. A. Hudson, signal and electrical superintendent. The field work was in charge of A. W. Wilson, signal supervisor, and R. H. Youngblood, construction supervisor. The major items of signaling equipment were furnished by the General Railway Signal Company.

NEW BOOK

MIXED TRAIN DAILY, by Lucius Beebe, with photographs by Charles M. Clegg, Jr., and the author. 368 pages. Bound in cloth. E. P. Dutton & Co., New York, $12.75.

This heavy and handsome volume is the lengthened shadow of a man. There is absolutely nothing in it which is not unrestrained exposition of the loves and prejudices of Lucius Beebe—man-about-town, society reporter, gourmet and lover of "the plush era." This is not to say that the value of the book for what its author customarily terms a railroad *aficionado*—or devotee—is in any way damaged by lack of objectivity. On the contrary, in matters of the heart there can be no arbitration and, in matters of taste, no dispute.

This is probably the handsomest volume on railroading to come from the presses since the German National Railways published its centennial memorial history in the Thirties. The photographs, which are outstanding examples of the camera-man's art, as well as evidences of peculiarly discriminating insight, are beautifully reproduced and of adequate size to delight anyone who has any appreciation at all of the railroad and the steam locomotive. Messrs. Beebe and Clegg have undoubtedly gone to the length of human endurance in their capacity to wait for the right train on the right curve with the amount of smoke issuing from the stack. Six fine paintings by Howard Fogg also grace the volume.

As for selection of material, the author has "played his favorites," with particular emphasis on the Florida lumber roads, the Georgia short lines, and the western narrow-gage network. In the latter instance, the author has departed from the otherwise general exclusion of branch lines of Class I roads to include narrow-gage appendages of the Southern Pacific and Rio Grande. However, there is a broad coverage of many other short lines whose characteristics appealed to the author's emotions.

The author has displayed a fine eye for the "differentness" which inheres in individual short lines. Furthermore, he has uncovered a wealth of human and local interest material, although it suffers somewhat from his subjective treatment of it. The language of the book may be described as sumptuous—filled with all of the euphuisms that Mr. Beebe has at his command. This makes for slow reading, and at times, obscure reception, but it cannot be said that the work lacks sincerity or hard, careful writing.

Fourteen officers of the traffic department of the Louisville & Nashville attended a training course for conference leaders at the University of Alabama in December. The line of standing men in the background comprises training personnel of the university and of the railroad

WORKABLE KNOWLEDGE IS AIM OF L. & N. TRAINING PROGRAM

A number of universities and state departments aid in setting up a comprehensive system program

A three-dimensional training and educational program has been developed on the Louisville & Nashville. The separate—though complementary—facets of the program are:

(1) Training of officers to serve as group leaders in other phases of the program.

(2) Training of supervisors in all departments of the railroad in human relations and in knowledge of their business.

(3) Training of public-contact employees.

Ultimately the program will extend beyond these fields, present plans calling for putting approximately 2,000 employees and officers through the various courses each year.

In general, the course of study in each of the three categories is conducted under the conference method, with open-forum discussions of all subjects. To attain the highest standards of individual participation, groups are generally limited to 12 to 15 students. Classes are held once a week, lasting from one to two hours. Complete courses extend over a period of six to eight weeks.

The program finds particular favor with individual employees because it emphasizes the value of knowledge of human relations in general and the railroad business in particular in solving the individual's own daily problems. In this connection, the courses for employees touch upon such individual interests as the Railway Labor Act and the benefits of the Railroad Retirement Act.

Second, and more important, perhaps, than the specialized skills and knowledge of various departments in the railroad business is the mutual working out of the fundamental problems of "the human element" in a great corporation. Finally, a portion of the program in all three categories is devoted to the status of a railroad as member of a private-enterprise business society, to the relations of that business with government, and to the relations between management, employees and the owners. Much of the latter material is based upon the L. & N.'s recently-published informative handbook, "The L. & N.—Private Builder and Public Servant," which has been mentioned briefly in *Railway Age*. This book has been given wide distribution among the road's personnel.

The training program of the L. & N. was given initial impetus on March 26, 1947, when President

(*Continued on page 59*)

FINANCING RAILROAD EQUIPMENT PURCHASES

A comparison of equipment trust and conditional sales methods in the light of changing interest rates

By **FREDERICK C. FIECHTER, JR.***

Purchase money obligations currently used in railroad equipment financing become less prosaic as estimates of needs become more handsome.

According to the best guesses of informed conservative opinion, there will be purchased in the next five years 60,000 to 120,000 freight cars a year†; 2,500 to 3,000 passenger cars, and considerably over a half billion dollars worth of locomotives. And large figuring is in order even if mere maintenance of the *status quo* is the objective of this country's transportation economy, not to mention Europe's.

Available Procedures

There are, for the railroads of the United States, five customary methods of acquiring equipment:

1. Rental.
2. Construction in company shops.
3. Purchase outright for cash.
4. Purchase on general credit.
5. Purchase with seller (or trustee) retaining title or a lien.

For the near future, simple rental is such an impracticable method as to merit no present consideration, other than mention of the tank and refrigerator car business of the private car lines. This leaves the means of paying for *new* equipment the real problem, which in turn may, for most railroads, be narrowed to the last method—that is, purchase on credit with the seller (or more usually his assignees) retaining title or a lien. For a time railroad mortgages customarily provided for the issue of bonds for the acquisition of equipment, frequently with a provision that any bonds so issued should carry a sinking fund adequate to retire them in 20 years. However, subsequent to the depression interest rates on equipment issues were so much lower than those on bonds that equipment trusts were preferred. And insurance companies, the largest purchasers of railroad bonds, felt that bonds were not the best way to finance equipment in any case. Consequently recent mortgages do not provide for issuance of bonds to purchase equipment although they may contain provisions designed to facilitate the execution of equipment trusts by subordinating the mortgage to equipment trusts created within a limited time after the acquisition of equipment.

Unsecured promissory notes are seldom issued to pay for equipment, except for very small purchases. The three principal variations of the purchase money obligation are, in ascending order of importance:

(a) Chattel mortgage.
(b) Conditional sale.
(c) Lease with option to purchase.

And the omnipresence in which these variations must be examined is an ever-larger federal debt, which has already exceeded $260 billion, and its imperative recent depression of money rates.

The "car" trust, latterly known as the equipment trust (because of its use to finance other equipment as well as cars), has for more than a half century been the most customary means of purchasing new equipment. Recent equipment obligations issued by Class I line-haul railways in the United States§ were:

Year	Equipment Trust Obligations (Millions)	Average Interest Rate Per Cent	Cond'l Sales Obligations (Millions)	Average Interest Rate Per Cent
1942	$59	2.32	$34	2.04
1943	61	2.31	27	1.93
1944	74	1.74	55	1.78
1945	72	1.77	48	1.61
1946	00	00	00	00

In 1945 our seven largest insurance companies owned over $154 million of equipment trust paper and in 1946 the same companies owned slightly less than $136 million.

During the recent renaissance of earnings engendered by World War II there has been a tendency toward the use of conditional sales owing largely to the probable ability of the roads to speedily amortize the equipment and to the availability of large funds requiring investment by banks and insurance companies. But where equipment has a 4½ per cent rate of depreciation and a 25-year life, the cash for the service of equipment trusts is amply covered by the regular equipment depreciation charge which is apt to be well in excess of maturities, even though in the United States, unlike Canada, equipment trust maturities are officially considered a capital outlay rather than an operating expense.

Once the railroad has decided to purchase equipment, and its operating officers have accumulated cost data from the suppliers in answer to their inquiries, the financial officers have to consider the ways and means of paying for the purchase. The mechanics of those methods are briefly as follows:

Chattel Mortgage—The builder transfers title and possession of the equipment to the railroad which

* The author is a member of the bar and an officer of the Pennsylvania Co. for Banking & Trusts.

† In the Krug report it is said: "To place the railroads in a safe position to take care of our expanding domestic needs and export requirements, they should place in service a minimum of 180,000 cars a year for the next five years."

§ Statistics of Railways in the United States 1942 to 1945 inclusive, I.C.C.

gives back a mortgage to the lending institution secured by the equipment. Thus only a lien on the equipment is retained. The railroad provides the appropriate insurance coverage. Recordation in every county where the equipment operates is apt to run into a prohibitive cost.

While this is seemingly an obvious way to finance, it is seldom used in practice because the equipment so acquired would fall into the maw of the railroad's general mortgage, by reason of the after-acquired property clause, before it is effectively mortgaged under the chattel mortgage.

Conditional Sale

Conditional Sale—An agreement is entered into between the builder and the railroad, whereby the former agrees to construct, sell, and deliver to the railroad specified equipment at a specified price, subject to changes in specifications and price of materials. The railroad agrees to pay a certain amount in cash on final completion of each unit of the equipment and the balance in installments (usually monthly, sometimes quarterly) until the full purchase price is paid with interest on the diminishing unpaid balances of the purchase price. There may also be a right to anticipate payments.

Title to the equipment stays in the builder (pending assignment) until the railroad has paid in full and performed all its covenants under the agreement. (Therein lies the condition.) All taxes and insurable risks and maintenance, however, are assumed by the railroad as soon as it takes possession of the equipment. The equipment carries a sign showing the builder (or its assignee) as owner and it must not be transferred or sublet without the owner's permission.

The builder ordinarily assigns its rights to a bank or other financial institution which is furnishing the credit. Sometimes several institutions (rarely more than a dozen) participate in providing the fund, but the agreement is made with one lender. Usually the assignment to the lender is made contemporaneously with the conditional-sale agreement and it often is printed under the same cover as the agreement. By statute, recordation may be effected in one office in each state involved.

In the event of default, the lender is given the right to repossess the equipment and is specifically relieved of any failure on the part of the builder fully to perform his part of the bargain. But the lender usually has no recourse against its assignor, the builder, for the failure of the railroad to carry out its part of the agreement. The builder does agree to save the lender harmless from all other types of losses.

The name plate is changed to show the actual owner and may read:

Merit Trust Company, owner, as Assignee of Railway Car, Inc., Manufacturer and Prior Owner.

Sometimes the conditional sale agreement is directly between the financial institution which is designated the "seller" and the railroad which is designated the "buyer." Recitation is made of the building contracts already entered into by the railroad with the builder and of the fact that title is to go from the builder to the "seller" rather than to the "buyer." Delivery is made "to the buyer" for the account of the sellers." The railroad makes its payments to the bank and the rights and duties of the railroad, builder, and lender are otherwise substantially as under the first type of conditional sale agreement.

Lease with Option to Purchase—("The Philadelphia Plan" Equipment Trust). The railroad arranges with

Table of Methods of Financing

Method	Title to Equipment	Lender	Operative Documents	Term	Recent Money Rates	I. C. C.	Actor on Default and Remedy	Legal Fees	Incidental Costs	Taxes
Promissory Note	Passes to railroad immediately	One or few banks or insurance companies	Note, bill of sale	5 years maximum usually	1.5–3%	No approval required unless maturing more than 2 years after date of issuance or more than 5% of carrier's securities.	Lending individual or institution must prove up debt as a general creditor.	Nominal	None	Federal tax
Chattel Mortgage	Passes to railroad immediately.	One or few banks or insurance companies	Note (sometimes); bill of sale; chattel mortgage to lender.	7 years maximum usually	2–3%	No approval required, unless note is issued, then only as above.	Foreclosure of mortgage, repossession of equipment	Nominal	None, except for recording	No federal tax, unless there is note too.
Conditional Sale	Passes to railroad from vendor upon final payment on account of purchase price to vendor.	Up to a dozen banks or insurance companies, but deal usually with one institution.	Bill of sale; conditional sale agreement, assignment thereof to lender; note (sometimes).	10 years maximum usually	1.35–2.75%	No approval required, unless note is issued, then only as above.	Repossession of equipment and or suit for unpaid instalments.	Substantial	Printing agreements, regular recording.	No federal tax, unless there is note too.
Philadelphia Plan Equipment Trust (Lease with option to purchase.)	Passes to trustee immediately. Upon final payment of principal and interest passes to railroad.	Sold publicly under competitive bidding; any number of banks, insurance companies, investment bankers or dealers usual purchasers.	Bill of sale; equipment trust agreement; lease agreement; equipment trust certificates.	Usually 10 or 15 years, rarely over 20	1.34–2.50%	Authority to assume liability as guarantor and to sell the trust certificates.	Trustee repossesses. May proceed against railroad on its guarantee.	Substantial.	Printing agreements, engraving certificates, advertising for bids, trustee's fees, recording.	Federal issuance stamps.

the builder to place title to the equipment, as it is delivered, in straw vendors, frequently employees of the trust company which is designated trustee, to pay 15 to 25 per cent cash for part of the cost and to issue certificates for the balance.

These vendors, trustees, and railroad then contract with each other that the vendors will sell the equipment to the trustee, but deliver the equipment to those persons designated by the trustee. Upon such transfer of title and delivery (usually, of course, to the railroad), the trustee issues to the vendor the equipment trust certificates. In lieu of delivery of equipment, certificates may be issued against cash deposited by the vendor, which is later used to pay for the equipment. The latter is now the almost universal practice; the former provision being elided as obsolete.

The trustee concurrently enters into a separate agreement with the railroad leasing the equipment for so much rent as will pay principal, interest, and expenses.

Provision is made for the equipment to carry some such legend as:

Granite Railway Equipment Trust, Series I, Merit Trust Company, Trustee, Owner and Lessor.

Except for pooling arrangements, the railroad is obligated to keep possession of the equipment which is subject to periodic inspection by the trustee. Often the lease provides for subletting equipment units with the written consent of the trustee. In other respects the rights and obligations of the parties are about the same as under the other methods of financing.

Equipment Trust Certificates

The equipment trust certificates do not constitute a *direct* obligation of the railroad even if it guarantees payment of principal and dividends (interest). Almost all equipment trust issues are now so guaranteed. Their security is found in the equipment and the lease, both of which are held by the trustee in trust for the benefit of the holders of the interests represented by the equipment trust certificates. American accounting practice, as prescribed by the Interstate Commerce Commission, however, requires equipment trusts to be carried by the railroad companies as diect obligations.

The fact that the railroad may desire to manufacture the equipment in its own shops does not preclude the use of the equipment trust, providing mortgage trustees will give a release of that equipment, or such mortgage liens are avoided by special procedures. As an example of the latter, certain individuals who may be designated "owners" and the railroad company as "builder" enter into an agreement. The "owners" are the vendors under the equipment trust to which the lending institution and the railroad are also parties. An engineering firm, independent of the railroad, supervises the actual fabrication of the equipment under some such designation as "resident engineer."

Every care is taken to insulate the operation as much as is practicable from the rest of the work in the railroad's shop. Materials are ordered on separate vouchers, are specially marked, segregated, and paid for, together with labor, from special funds borrowed by the "owners" (on the security of the railroad's contract to buy) and not furnished by the railroad. Title to the equipment stays in the "owners" until "delivery" when it passes to the trustee, and careful instructions are issued to the railroad's purchasing, stores, car, treasury, and accounting departments covering the *modus operandi.*

Selecting a Procedure

The first question the railroad financial officer will answer is how many of the alternative methods of financing are open to him. Special statutes or provisions in pre-existing obligations may preclude considering certain methods of financing. But for purposes of discussion it may be assumed that the jurisdictions in question fully recognize chattle mortgages and conditional sales and there is no after-acquired property clause in an existing mortgage suggesting the use of a Philadelphia Plan equipment trust.

The next question to be answered is how much money is needed for how long? Larger funds payable over longer periods are not so adaptable to the conditional sales device. On the other hand, the equipment trust method may seem a long run for a short slide, if the amount involved is small and the repayment period can be short.

Much depends on the money market. By I. C. C. order, equipment trust issues must be open to competitive bidding (either by "invitations to bid" extended to a comprehensive list of houses or by advertising), whereas conditional sales need not, unless the purchase price is represented by notes as is sometimes the case. Is the investing public (aside from the institutional investor) primarily interested in security with income or primarily interested in capital gain? Is a negotiated sale apt to be more productive than a competitive offer? Will the advertising incident to an invitation to bid on equipment uncover an offer which negotiating with a few houses would never disclose?

The final choice is apt to be between the conditional sale device and the equipment trust. The treasurer with 4 per cent obligations outstanding who expects a stiffening of interest rates may want to get 2 per cent money for as long a term as possible and so decide on an equipment trust regardless of any additional incidental expense or red tape. That will allow him more excess treasury cash or reserve funds for a longer period to pay off the 4 per cent obligations. This approach boils down to what money will be worth from five to fifteen years from the day the money in question must be raised. Most economists believe it will be worth more than it is worth today.

A glance at the table will indicate the extra costs involved in the equipment trust method. While equipment trustees' fees have come down (unlike most of the services and commodities a railroad buys), they may still be substantial. For example, in a fifteen year trust for $7,000,000, the various services performed by a trustee, including issuance and authentication of trust certificates, registration, paying certificates (annually) and dividend warrants (semi-annually), paying builders for equipment, and sorting and listing coupons and certificates and cremating them, might easily run to a total of $16,000, without miscellaneous expenses or the trustee's counsel fees.

Then there is the cost of engraving or lithographing the certificates (17 to 25 cents per certificate) and the federal $1.10 per $1,000 issuance tax.

If there is any difference in accounting cost, after issuance, it is apt to be in favor of the equipment trust device. On the other hand, overall interest charges are cut down by a monthly or quarterly (for conditional sales), as opposed to a semi-annual (for equipment trusts), schedule of payments.

The legal fee may be as little as $300 where outside counsel is simply approving one link in a chain of similar trusts and the administrative detail is handled by the railroad's own counsel, or it may be several thousand dollars. Two thousand dollars for a $7 million issue is typical.

Since 1933 member banks acting as trustees have been prohibited by Federal Reserve Regulation 19 from allowing a fixed rate of interest on equipment trust funds. But to offset the cost of the equipment trust device, some railroads invest the funds in federal government securities through the trustee, pending their being required for payment of the equipment. In other cases, the trustee simply quotes a fee less what it expects the unrequired funds on hand to earn for the trust company, if so invested. It may or may not have the guarantee of the railroad covering any principal loss resulting from the investment. The indenture should specifically provide for the situation in any case. Not only does this arrangement reduce the trustee's charge, but it counterbalances the advantage offered by the conditional sale device which involves no interest charge during the period of constructing the equipment.

Section 20(a) of the Interstate Commerce Act as amended by the 1920 Transportation Act, providing for the regulation by the I.C.C. of railroad security issues and guaranties, makes it unlawful for any carrier to "issue any share of capital stock or any bond or other evidence of interest in or indebtedness of the carrier, or to assume any obligation or liability as lessor, lessee, guarantor, indorser, surety or otherwise" without I.C.C. authorization. The commission must find such issue or assumption is for "some lawful object within (the railroad's) corporate purposes and compatible with the public interest . . . necessary . . . appropriate . . . consistent with . . . proper performance . . . of service . . . as . . . common carrier, . . . will not impair its ability to perform that service, and . . . reasonably necessary and appropriate." Thirty days must be allowed the commission for its investigation which, through a cooperative commission, rarely takes over three weeks.

The Securities Act of 1933, the Securities Exchange Act of 1934, and the Trust Indenture Act of 1939 have no direct bearing on railroad securities although railroad indentures may become acclimated by association with securities which do come under those acts.

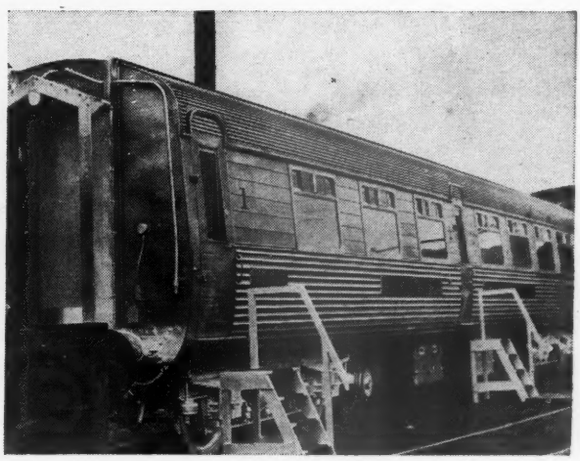
The traditional prestige of the equipment trust among investors is based on the fundamental principle that there is a constant amount of collateral pledged for an ever-decreasing amount of the loan, the value relative to the amount of the loan being so preserved despite depreciation or obsolescence of the collateral so pledged. And, of course, a railroad needs its rolling stock to operate. From the point of view of some operators, the necessity for meeting equipment obligations first, last, and always, constitutes a stranglehold in contrast to the control the railroad has of a purchase under a conditional sale agreement. But stiffening money rates, combined with increased purchases of equipment, point to an unprecedented number of new equipment trust issues in 1948. An abrupt increase of interest rates, in general, evidenced since the year-end holidays, will be more acutely felt in the equipment financial market because of the effect of large volume *per se*. The 3 per cent milepost has been reached and is already receding down the track.

Some of the newer provisions found in currently issued equipment trusts, in addition to the one for investment of funds on hand, include:

Reservation of the right to anticipate payment of some of the terminal installments. And if the company is unable to acquire all of the equipment for which certificates had been sold, unapplied cash deposited with the trustee could be used for redemption of later maturities. However, such provision prevents the trust from qualifying for investment by New York savings banks.

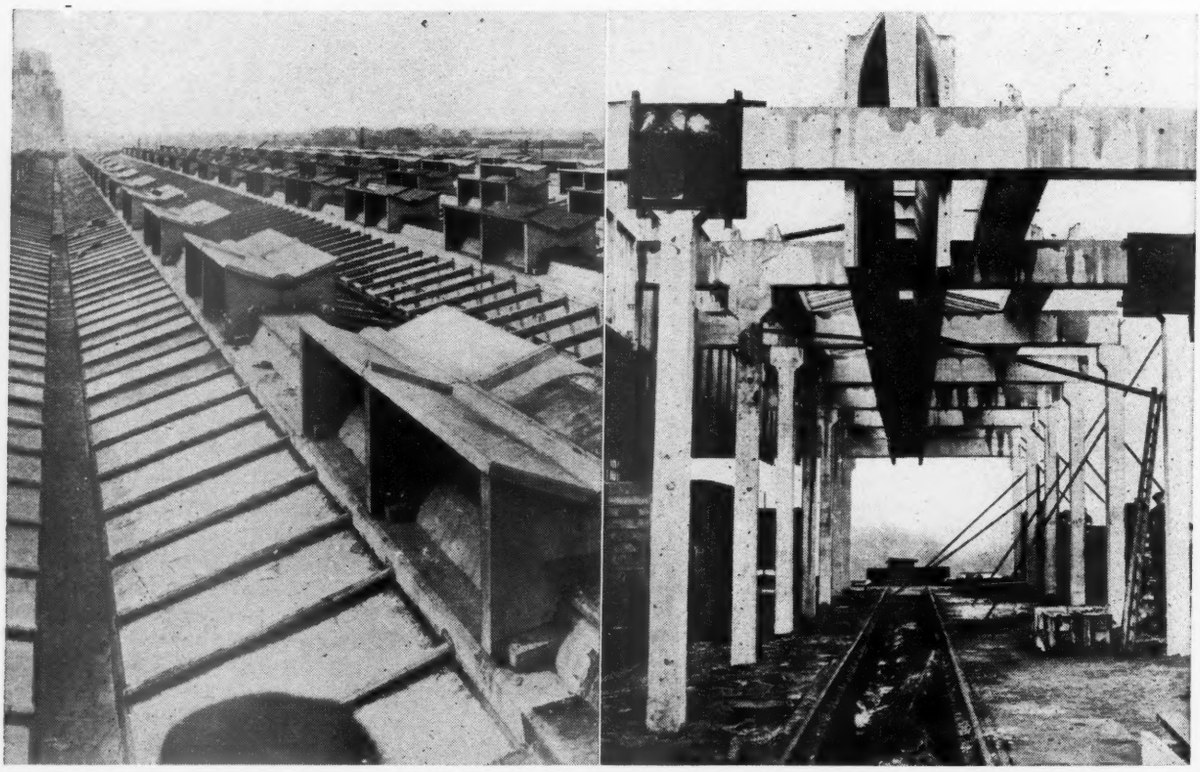
Right of substitution of equipment where that originally specified is unavailable.

Right to issue certificates in installments with the total of any one installment unfixed, but a maximum amount for the whole trust mentioned.

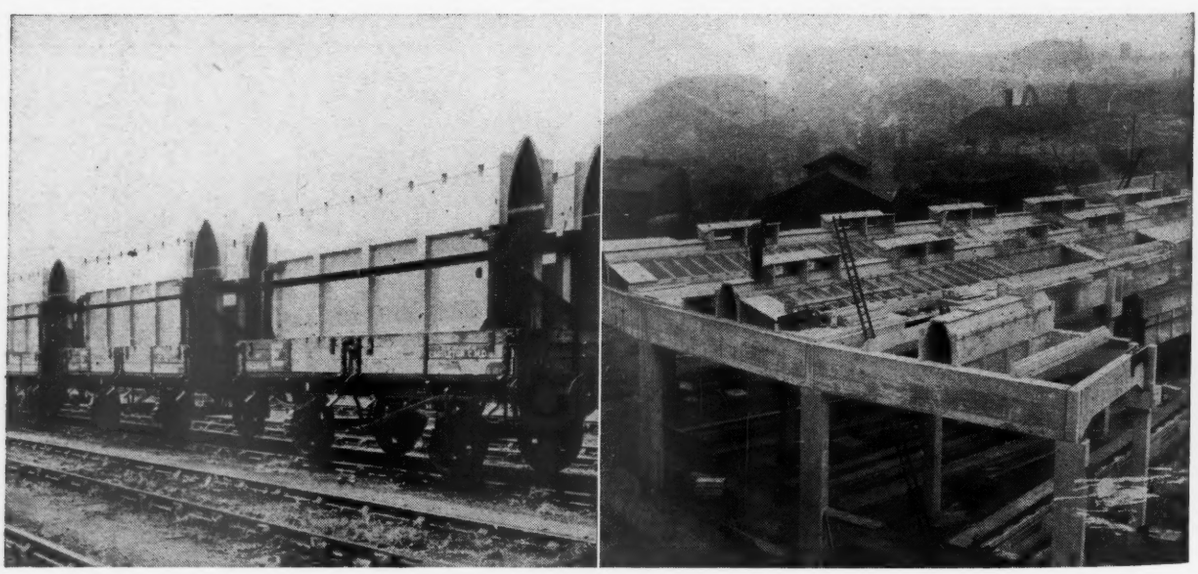


Left—Third-class accommodations in a new coach previewed recently at Oxford, England. Exterior of the coach (right) which has such features as non-steam-up windows and seats which can be adjusted to become beds

BRITISH REBUILD ENGINE-SHED RO



Above left—General view over roof of one of the straight engine sheds. Units are all of precast concrete. Above right—A bay of one of the straight sheds during erection. Below left—Special wagons carrying smoke-trough units. Below right—A section of one of the new roundhouses under construction



ROOFS WITH PRECAST CONCRETE UNITS

London, Midland & Scottish applies this type of construction to 28 rectangular structures and 13 roundhouses—Employs even preformed columns and inspection pits in two houses

By **R. L. M'ILMOYLE**

Assistant Engineer of Structures,
London Midland Region, British Railways
London, England

The rapid development of railways in Great Britain left many unfortunate legacies, not the least embarrassing of which is the small clearances that have prevented major increases in the size of locomotives (the largest passenger locomotive on the London, Midland & Scottish* is 73 ft. 9¾ in. over engine and tender and weighs approximately 164½ tons loaded). Consequently, more locomotives are required to move a given tonnage than in America, as well as more service and repair facilities. Furthermore, the L. M. S. was formed in 1923 by the amalgamation of seven major and several minor companies, each of which had its own designs of locomotives. While there has been a great reduction in the number of types of locomotives in service since amalgamation, there are still many different sizes to be handled at terminals.

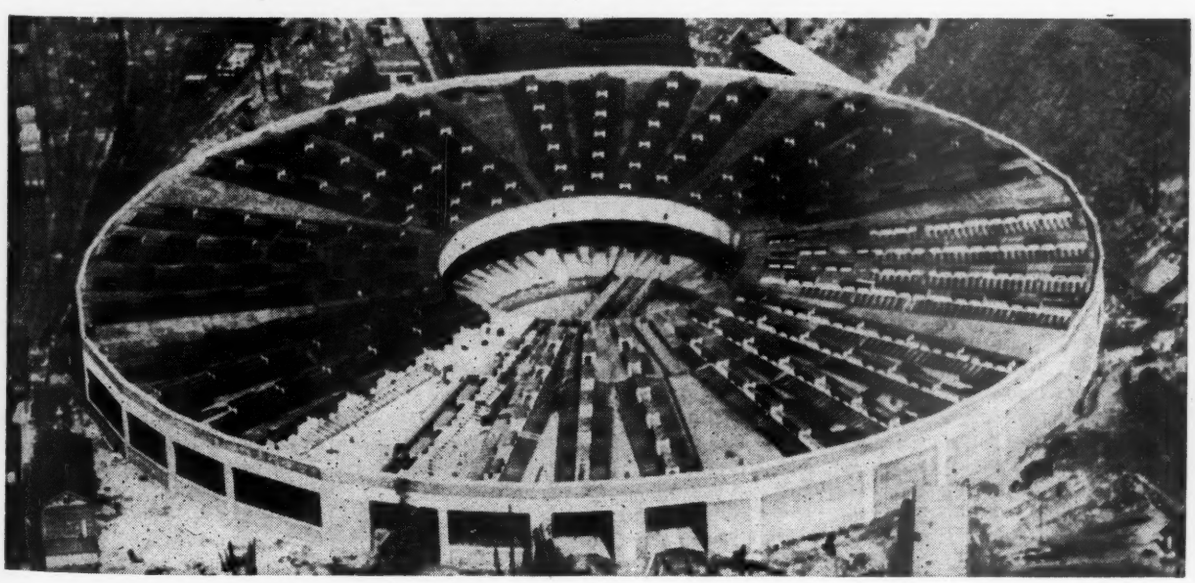
As maximum use must be made of all covered accommodations at terminals, it is difficult to stable locomotives, as on American roads, so they can be placed under individual smoke jacks. This is because the American type of roundhouse, with individual stalls for locomotives, is almost unknown in Great Britain (there is only one shed of this type on the L.M.S.), and live steaming and mechanical extraction of smoke with individual uptakes have not yet been adopted. The major problem in enginehouse design on the L.M.S., therefore, is the efficient removal of smoke with adequate weather protection.

The effects of an economic crisis are often delayed, and the full impact of that which occurred in the early Thirties on the maintenance of railway structures in Great Britain only became apparent some years later in the serious deterioration of some structures as the result of long-deferred maintenance. This was particularly true in the case of many engine sheds, and in 1939 the condition of some of these sheds on the L.M.S. was such that their renewal in the near future was necessary. It was, however, impossible to proceed with the work at that time as the outbreak of war caused the postponement of all work which did not immediately contribute to the war effort.

The more intensive use of engine sheds arising from heavy war traffic accelerated the deterioration of the

* Coincident with the nationalization of the British railways, effective January 1, 1948, the London, Midland & Scottish (except the lines in Scotland) became known as the London Midland region of the British Railways. However, since this article was written prior to January 1, the development discussed is described as being the work of the L. M. S.

Aerial view of one of the new roundhouses on the L.M.S., built of precast concrete units



roofs of these sheds and, as efficient working of motive power depots was considerably hampered by the absence of watertight coverings in these sheds, the company was forced to reconsider the question of renewal at a time when both labor and materials were in short supply.

The roofs of several sheds had been reconstructed prior to 1939 to a more or less standard design which, broadly speaking, was satisfactory. This design provided deep continuous timber smoke troughs, the troughs being open at the top for their full length, with segmental corrugated asbestos-cement covers fixed some distance above the opening. Glass in timber glazing bars on both sides of the troughs provided adequate natural lighting. As this design was basically of timber, it was impossible to continue using it under wartime conditions, and a satisfactory substitute had to be found.

The use of reinforced concrete in engine-shed roofs had been explored before the outbreak of the war and a tentative design of poured-in-place construction had been prepared. Likewise, there had been considerable experience in the use of precast concrete for work of this nature. The poured-in-place method could not, unfortunately, be used during the war as the amount of timber required for formwork was nearly as much as that required in the prewar design, and the only alternative appeared to be the use of precast units. These offered the further advantage of casting and curing the concrete under factory conditions, and reduced the time of construction on the site, thus insuring the least interference with the working of the depot.

As the timber-trough design had been relatively satisfactory, this was taken as the starting point for the new design and a structure utilizing concrete units was evolved which was relatively simple to erect, required a small number of units which could be standardized, and appeared to be even more efficient than the earlier design in the disposing of the smoke.

Modify Trough Vents

When the design had been developed on broad lines, arrangements were made to study its smoke-extracting properties by means of models in the wind tunnel at the research laboratory at Derby. A complete series of tests was made and only small modifications were necessary to give good positive extraction for all horizontal wind directions.

It was considered that to obtain satisfactory results with the wind blowing along the length of the troughs, the continuity of the early design of vent would have to be broken. Thus, intermittent vents above the continuous smoke troughs were proposed on the assumption that the turbulence caused by the end walls of these would give the necessary extraction effect. To meet this requirement, only half of each bay of the smoke trough was provided with a vent and the openings on adjacent troughs are staggered to avoid the blanketing effect of adjacent troughs with a cross wind. The tests indicated that the desired result was obtained but that the effect was slightly improved by extending the intermediate cross wall a short distance above the roof of the vent and making it a greater width than the end walls.

With a cross wind the extraction is on the venturi principle, the smoke trough sides being closed in at the top to a throat width of 12 in. Maximum extraction occurs with a wind approximately 60 deg. to the axis of the trough.

When the wind tunnel tests had been studied and the necessary modifications made in the design, a full-size section was erected on an engine shed and tried out under actual working conditions. This indicated that the throat of the smoke trough was slightly narrow, and an increase in its width had an appreciable effect on the rate of extraction. This modified width was subsequently adopted in the standard design.

Types of Sheds

The L.M.S., being a composite group, has several types of sheds and as in most cases the walls, pits and other parts of the sheds were in relatively sound condition (deterioration being confined to the roof), it was necessary that the new roof design fit the remainder of the structures. Basically (although there were minor modifications) the various types of sheds could be reduced to three, the first two of which are generally referred to as "straight" sheds:

(A) The shed with parallel tracks, generally covered with a north-light-type roof;
(B) the shed with parallel tracks covered with queen posts or similar type roof;
(C) the so-called "roundhouse," which is generally a square building with a turntable in the center, with radial tracks leading off, generally covered by three parallel spans.

The greater number of sheds fall under Type A. Therefore, the development of the new standard roof design was based on this type of shed, i.e., parallel tracks with columns in the space between alternate tracks. Investigation showed that a large amount of standardization could be achieved in these sheds and a standard design requiring only seven types of basic precast units was adopted. These units include columns, beams, smoke curtains, gutters, glazing bars, vents and trough cover slabs.

The only alteration necessary to make this design fit a large number of sheds was a slight increase in the length of the beams and glazing bars. The other units could remain constant in length. In one case, where the shed varied considerably from the general standard, it was necessary to provide precast slabs as filling-in pieces in the roof, as the width between tracks was too great to be covered economically by the glazing bars.

Applied to Roundhouses

When the design had been successfully applied to this type of roof, and also to some special cases of Type B, the extension of the principle to Type C, the so-called "roundhouse" shed, was investigated. Here also it was found possible to achieve a considerable degree of standardization by adaptations of the basic design. The problem in this case was complicated by the fact that, since the existing shed was square, the radial tracks varied in length, and, to make the maximum use of them, engines were stabled in such a way that, for adequate protection, cover had to be provided over the turntable.

As these turntables were generally between 50 and 60 ft. in diameter it was difficult to provide a roof which would meet all the requirements. However, after investigation it was decided that it would be possible to frame this opening as a rectangle 65 ft. by 51 ft., which could be covered economically by precast concrete tied-

arch units supporting a precast concrete roof. The tapered areas between the tracks are covered by glazing and slabs in such a way as to enable the number of special units to be reduced to the minimum.

In the case of the sheds with parallel tracks the new reinforced precast columns are spaced on 16-ft. centers longitudinally and generally in the spaces between each pair of tracks. These are set in sockets provided in poured-in-place foundation blocks and carry the transverse beams which support the roof structure.

When adjoining beams have been placed the junction is concreted, using special steel forms, thus making the transverse beams continuous (although, as most of the dead load has been placed on them before this joint is made, they are designed as simple beams). Top reinforcement is provided to carry any reverse moment over the columns.

The gutter beams and the smoke curtains are 16 ft. long and are supported by and fixed to the transverse beams. The concrete glazing bars span between the curtains and the gutters, thus providing strips of glazing varying from 3 ft. to 4 ft. wide along each side of the tracks.

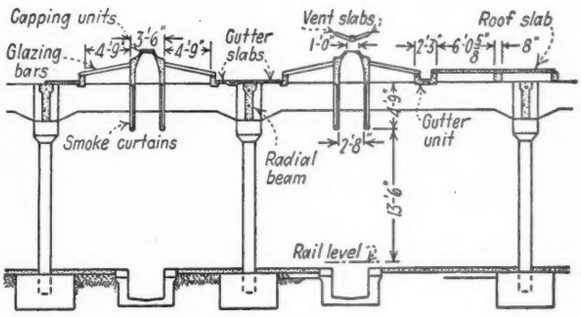
The smoke curtain units are approximately 8 ft. deep and weigh 2¾ tons. They are designed as simple beams and no attempt is made to make them continuous after erection. Approximately half the length of the throat of each unit is closed by slabs. The other half is left open, but is made weathertight by providing three pedestals which carry slabs over the top, arranged in the form of a flat "V." These not only provide adequate cover to the opening, but also increase the venturi extraction effect.

Method of Erection

The normal method of erection is to demolish the existing structure over two tracks at a time, and to follow immediately with erection of the new units. Erection is carried out generally by means of a 10-ton traveling crane, which completes each bay for the full length of the shed before proceeding to the adjoining bay. Speed of erection depends upon local circumstances, but up to six panels, approximately 25 ft. by 16 ft., can be erected in one week.

The gutters are lined with two layers of bitumen felt. The tops of the smoke vents and the covers over the smoke troughs are also covered with the same material. The glass is fixed into the concrete bars with a plastic bitumen compound, of which the bedding material has a denser consistency than the pointing; the latter is carried completely over the top of the bar to ensure no possibility of leakage. The gutter units are laid without fall, but specially-designed cast-iron outlets and gratings are fixed into them at suitable intervals. These are connected to asbestos-cement (bitumen dipped) downpipes, which are carried along the beams as necessary, and brought together and connected to vertical stacks of pipes fixed to the columns.

Owing to the size and design of the smoke-trough units, it has been necessary to make special provision for their transport between points of manufacture and use. As there are normally two pairs of units to each bay, a special steel frame is fixed in an open-top car so that four units can be transported in the same relative position as they are to be erected. On arrival at the site, these units, by means of a special lifting gear, are



Section showing typical precast concrete-unit roof design in smoke-trough area

hoisted directly from the car into their final position in the roof.

While the sheds which previously had north-light-type roofs could be dealt with in this standard manner, there were a number of cases where the existing sheds had roofs with larger spans and where the operating department would not agree to the location of columns between alternate tracks, owing to the clearance restrictions which they would impose. In these cases, special arrangements had to be made, such as the use of transverse beams spanning three tracks and carrying three, instead of two, smoke troughs. This could be done by a slight increase in the section of the beam, but it was not possible to adopt this expedient when more than three tracks were involved.

Generally, the existing walls are used to support the outer ends of the transverse beams, but in one shed these walls were found to be in such bad condition that they were unsuitable for the increased loads. In this instance they were demolished and replaced by precast columns, to which the outer ends of the transverse beams were connected. The space between the columns was closed by means of a brick curtain wall, in which steel-sash windows were fixed at suitable intervals.

Previous experience had suggested that adequately cured concrete should be reasonably resistant to attack by smoke fumes, paricularly if efficient extraction was obtained. It was found, however, that with the smoke from the inferior coal used during the war, the concrete in the smoke troughs was abnormally affected, particularly where the use was heavy. The research department recommended the application of bituminous solution to all surfaces in contact with the smoke and this has proved effective in protecting the concrete and in preventing condensation.

As already mentioned, the problem of providing new roofs for the existing round sheds, utilizing the standards developed for the straight sheds, was difficult, particularly as cover was required for the turntables. The available space between the radial tracks near the turntable was such that it was difficult to find space for columns, and a design to cover the turntable was developed which required only four columns, placed at the corners of a rectangle approximately 51 ft. by 64 ft. Owing to limited clearance, these columns were made of structural steel encased in concrete, and carry steel plate girders which are similarly encased.

The remainder of the roof (the sheds being approximately 180 ft. square) is supported by beams arranged on radial and circumferential lines, the latter supporting

the smoke curtains, which are provided over each track. The rectangular area over the turntable is covered with reinforced concrete slabs and glazing fixed in concrete bars, which are supported by four precast concrete bow-string arches of 50-ft. span, each of which weighs approximately 11 tons. The tapered spaces lying between the radial gutters and the smoke curtains and glazing are filled in with precast slabs, which are arranged to drain into the gutters.

The smoke curtains and the method of providing for extraction of the smoke are on the same general lines as in the straight sheds. The solid portions of the roof are made waterproof by means of two layers of felt. The largest individual units used in this type of shed are the bow-string arches, but apart from these the heaviest beam is 40 ft. long and weighs approximately 10 tons.

The present program provides for the reconstruction of the roofs of 13 sheds of this type, about half of which are sufficiently alike to enable the units to be made with only minor variations. On the remainder, modifications are necessary to take into account such factors as variations in the angle between the tracks.

In addition to these 13 sheds, the present program, now nearing completion, covers roof renewals on 28 straight sheds. These sheds accommodate a total of 1,200 engines.

In addition to the roof-construction program, two new roundhouses have been built using precast concrete units for the roof structure, as well as for the various beams, girders, columns and pits. In one case the parapet walls were built by the precast method. These new roundhouses are polygons with 32 sides, and were divided into eight similar sectors for the purpose of standardizing the precast units.

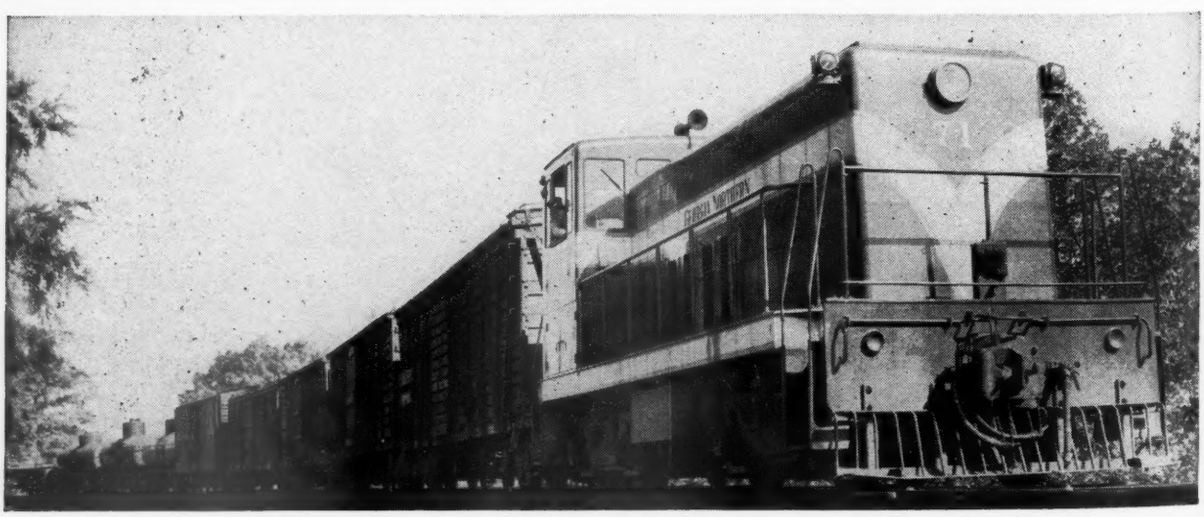
Basically, the design of the roof members and the roofing is similar to that used in the reroofing of the "square" houses, there being little difference in the radial sections over each track. However, some adjustment was necessary in filling in between the track sections adjacent to each other and to the outer ends of the stalls, due to the longer tracks and the polygon shape of the structure.

In these houses, the roof over the turntable was omitted due to the installation of longer tables, but the radial beams and roofing were cantilevered over the table to provide for better weather protection. Due to close clearance, the columns on the inner circle are placed only between groups of eight tracks, and circumferential girders are placed on these columns to span eight-track sectors. From these column locations the radial girders are cantilevered toward the table and are supported by columns toward the outer perimeter of the house.

GEORGIA NORTHERN DIESEL SAVES $1,900 MONTHLY

Use of a General Electric 70-ton Diesel electric road switcher by the Georgia Northern Railroad, of Moultrie, Ga., has accounted for savings averaging more than $1,900 per month, according to C. W. Pidcock, president and general manager of the railroad. At this rate, the locomotive will pay for itself in three years. It was put in operation by the Georgia Northern in January, 1947, replacing two coal-burning steam locomotives.

The Diesel-electric operates 20 hours a day, six days a week—an average of approximately 520 hours a month and has had an average availability of 95 per cent. The difference between the cost of steam and Diesel operation is largely due to fuel savings, which alone average $1,500 monthly. This road, furnishing mail, express, freight and passenger service, operates between Albany, Ga., and Boston, over 69 miles of main line track.



A 70-ton G. E. Diesel-electric road switcher hauling a train of 14 loaded cars on the Georgia Northern

rt V. White

Walter H. Edwards

W. H. EDWARDS ELECTED L. & N. E. PRESIDENT; R. V. WHITE, CHAIRMAN

Walter H. Edwards, whose election as president of the Lehigh & New England to succeed Robert V. White, who has been elected chairman, was announced in the *Railway Age* of December 27, was born in Wilmington, Del., on January 29, 1890. He entered railroad service in August, 1909, as an assistant foreman in the engineering department of the Baltimore & Ohio at Wilmington. From January 1, 1910, through August 31 he worked as a chainman for the same road and on the latter date received a furlough to enable him to attend Bucknell University. After his graduation in 1913 with a bachelor of science degree in civil engineering, Mr. Edwards rejoined the B. & O. as a timekeeper in the engineering department at Pawpaw, W. Va.

From June 21, 1915, to May 1, 1916, he was employed in the division of valuation of the Interstate Commerce Commission, after which he again rejoined the B. & O., this time as an office draftsman in the valuation department. Then, in succession, he worked as an abstractor, an assistant pilot engineer, a pilot engineer and a cost engineer. On December 1, 1930, Mr. Edwards went to the Lehigh & New England as general superintendent. He was elected vice-president and general manager on January 1, 1939, and executive vice-president and general manager, the positions he held until his election to the presidency, on January 1, 1944.

Mr. White, who is president of the Lehigh Coal & Navigation Co., of which the L. & N. E. is a subsidiary, was born in Boston, Mass. on December 26, 1886, and was graduated from the Harvard Law School in 1912. From 1912 to 1918 he was lawyer with the firm of Cravath, Henderson & deGersdorff. During the next 17 years Mr. White was a partner in J. & W. Seligman & Co., an investment banking house. In 1935 he became a partner in Dyer Hudson & Co., a brokerage firm, and two years later he joined another brokerage firm, Jackson & Curtis, also as a partner. Mr. White was elected president of Lehigh Coal & Navigation and the L. & N. E. in 1938. During the period 1935-1938, he served on the board of governors of the New York Stock Exchange and, in 1938, he was also a member of the Exchange's stock list committee.

The Lehigh & New England Railroad Company was incorporated on April 2, 1895, as reorganization successor to the Pennsylvania, Poughkeepsie & Boston Railroad Co., the property of which had been sold in foreclosure proceedings on December 14, 1894. With the exception of the directors' qualifying shares, the entire capital stock of the L. & N. E. has been owned by Lehigh Coal & Navigation since 1904. On December 31, 1946, there were outstanding 136,000 $50-par-value shares of common stock and the total long-term debt of $5,569,000 included $3,821,000 of series B first mortgage 3 per cent bonds, due on November 1, 1975, $421,000 of equipment trust certificates and $1,327,000 of deferred equipment payment contracts.

By virtue of ownership, leases and trackage agreements, the L. & N. E.'s line extends from Nesquehoning, Pa., through Panther Creek Valley in the southern anthracite fields of Pennsylvania in a generally northeasterly direction to connections with the New York, Ontario & Western and the New York, New Haven & Hartford at Campbell Hall, N.Y. Branch lines run into the cement and slate territory of Northampton County in eastern Pennsylvania and to Allentown, Pa., Bethlehem and Catasauqua. At the end of 1946 the road operated 193.14-mi. of track consisting of 86.95-mi. of main line, 62.31-mi. of branch lines, 4.08-mi. of leased lines and 39.80-mi. of trackage rights. Rolling stock owned included 42 locomotives, 3,067 freight cars, 12 ballast cars and 41 other work cars. Currently on order are 100 70-ton covered hopper cars, being constructed by the American Car & Foundry Co., and 11 Diesel-electric locomotives—10 1,500-hp. freight and 1 1,000-hp. switching engines—being built by the American Locomotive Company.

Ranked in order of their tonnage, hard coal, soft coal, cement, gravel and sand and petroleum are the principal commodities carried by the L. & N. E. In 1946 hard coal tonnage amounted to 6,501,519 (775,522 tons of which were received from connecting lines), soft coal tonnage was 1,833,692 (all received from connections), cement tonnage totaled 1,764,303 (193,856 tons from connections), gravel and sand tonnage was 99,238 (39,413 tons from connecting lines) and petroleum tonnage was 13,678 (all received from connections).

Operating revenues, which totaled $3,392,744 in 1938, jumped to $6,823,124 for 1946. Operating expenses in the former year were $2,546,217, compared with $4,690,729 in 1946. Fixed charges were $374,347 in 1938 and shrank to $154,456 in 1946, while net income increased from $337,798 to $1,118,538.

LOCOMOTIVE INSPECTION REPORT

Statistics of the work of the Bureau of Locomotive Inspection indicate that boiler defects and explosions are still a major cause of accidents and deaths

The thirty-sixth annual report of the Bureau of Locomotive Inspection, for the fiscal year ended June 30, 1947, recently issued by Director John M. Hall, reflects the gradual changes that are taking place in the character of motive power on the railroads of the United States. For the first time in several years the number of steam locomotives for which reports were filed and the number of steam locomotives inspected have taken a decided drop while at the same time the number of locomotives in the category "other than steam" show continuing increases. A total of 107,149 inspections were made during the fiscal year as compared with 112,777 in the previous year. The percentage of steam locomotives found defective remained at 11 and in the case of locomotives other than steam the percentage was 4.8, a decrease of 0.2 per cent from the previous year. Of the steam locomotives inspected 708, or 7.5 per cent, were ordered out of service and in the case of locomotives other than steam only 19, or 1.25 per cent, were ordered out of service.

Fourteen boiler explosions occurred in the fiscal year. Eleven employees were killed in these accidents and 22 were injured. Two explosions were caused by the overheating of crown sheets on locomotives in passenger-train service, nine on locomotives in freight-train service and two on locomotives in charge of engine watchmen. One explosion, on a freight locomotive, was caused by the overheating of the bottom combustion chamber sheet. Three employees were killed in one of the two explosions that occurred while locomotives were hauling passenger trains and eight employees were killed and two injured in three of the nine explosions caused by overheated crown sheets that occurred while the locomotives were in freight-train service. Fifteen employees were injured in the eight remaining explosions caused by overheated crown sheets. Six of these locomotives were in freight-train service and two were in charge of engine watchmen.

The overheating of the combustion chamber which resulted in one explosion in which three employees were injured was caused by the accumulation of sludge in the water space between the bottom sheet of the combustion chamber and the boiler shell. One of the boilers involved in the foregoing explosion was equipped with a low-water alarm. This alarm was so damaged in the explosion that it could not be tested without extensive repairs. However, a test before departure showed that the alarm functioned properly at that time.

Investigations developed that the absence of a safe water level was known by employees on two of the locomotives in advance of the occurrence of the explosions. Investigations of three explosions developed that dependence had been placed on gage cocks rather than upon water glasses for indicating the water level. All three gage cocks on another exploded boiler were found open after the explosion. None survived this accident and no conditions were found that would interfere with the proper operation and correct indications of the water glass.

Anxiety to avoid stalling or to keep trains moving is one of the various factors that lead to the occurrence of such accidents. Shutting off the boiler feeding appliance in efforts to maintain steam pressure should not be indulged in to the extent that a normal safe water level is not readily visible in the water glass. If the water level is being reduced at a rate in excess of that at which water can be supplied to the boiler the rate of working of the locomotive should be adjusted accordingly.

Another contributing factor to these accidents is the equipment of locomotives with boiler feeding appliances of inadequate capacity to supply the maximum quantity of water the boiler is capable of evaporating. The rules contemplate that each locomotive shall be equipped with two such devices, each capable of full stand-by service in the event of the failure of the other. Under many circumstances where maximum performance of the locomotive is required to maintain schedules, reluctance to use the two devices simultaneously occurs and the boiler water is consumed at a rate in excess of that at which it is supplied.

Table I—The Number of Locomotives in Service, The Number Inspected and the Conditions Found

STEAM LOCOMOTIVES

	Year ended June 30—					
	1947	1946	1945	1944	1943	1942
Number of locomotives for which reports were filed	39,578	41,851	43,019	43,297	43,064	42,951
Number inspected	94,034	101,869	115,979	117,334	116,647	113,451
Number found defective	10,248	11,337	11,975	12,710	11,901	10,970
Percentage inspected found defective	11	11	10	11	10	10
Number ordered out of service	708	690	506	630	487	474
Number of defects found	41,250	56,541	53,367	56,617	51,350	44,928

LOCOMOTIVES OTHER THAN STEAM

	Year ended June 30—					
	1947	1946	1945	1944	1943	1942
Number of locomotive units for which reports were filed	7,805	6,616	6,094	5,139	4,351	3,957
Number inspected	13,115	10,908	9,888	7,711	6,847	6,728
Number found defective	633	499	447	378	298	358
Percentage of inspected found defective	4.8	4.6	4.5	4.9	4.4	5
Number ordered out of service	19	17	16	9	6	12
Number of defects found	1,442	1,385	1,212	1,026	849	928

Reliance on gage cocks without taking into consideration the height of the water in the water glass is another contributing factor. Errors are made in interpreting gage cock indications. Water glasses should be blown out often enough, and the movement of water therein carefully noted, to insure that the water moves freely. Gage cocks should be tried frequently to check the level in the glass but a safe level should not be assumed if the bottom gage cock seemingly indicates the presence of water if none is visible in the glass.

One hundred and two boiler and appurtenance accidents other than explosions resulted in the death of one employee and injuries to 102.

Locomotives Other Than Steam

Forty accidents, resulting in two deaths and 41 injuries occurred in connection with locomotives other than steam. One employee was killed and two injured as a result of a short circuit between bus bars and a flashover to a cab bulkhead on an electric locomotive. One employee was killed on another locomotive by contact with an energized pantograph when an attempt was made to pass through a roof hatch, the door of which was open due to interference of an improperly assembled safety attachment to the grounding switch.

Six explosions occurred in crankcases of engines of Diesel-electric locomotives, resulting in injuries to seven employees. Five of these explosions were caused by overheated bearings, and one was caused by an overheated cylinder liner and piston due to inoperative water-cooling system shutters.

Two of the explosions caused by overheating of the bearings occurred when attempts were made to restart the engines after having been shut down because of emission of smoke from the valve covers and other indications of overheating; one occurred after the engine was taken off the line and the speed reduced because of unusual noise and low oil pressure; one occurred following shut down of the engine as a crankcase inspection cover was being removed to determine the source of a pounding noise. Another occurred following shut down of the engine because of smoke and a light explosion which forced off a valve cover; the second explosion forced off all valve covers and eight inspection covers and ignited the oil in the crankcase. The explosion caused by an overheated cylinder liner and piston occurred after the engine speed had been reduced to about one-half of normal because of the excessive temperature of the cooling water due to closed cooling system shutters.

The rapidly expanding and intensive use of Diesel-electric locomotives and repetition of accidents caused by crankcase explosions accentuates the need for a higher degree of maintenance of Diesel engines and the necessity of operators of these engines being fully informed of the hazards involved in continuing the engines in use when

Table II—Accidents Caused by the Failure of Locomotive Parts and Appurtenances

STEAM LOCOMOTIVE, INCLUDING BOILER, OR TENDER

	Year ended June 30—					
	1947	1946	1945	1944	1943	1942
Number of accidents	360	419	410	403	319	222
Per cent increase or decrease from previous year	14.1	[1] 2.2	[1] 1.7	[1] 26.3	[1] 43.7	[1] 45.1
Number of persons killed	16	10	20	25	27	34
Per cent increase or decrease from previous year	[1] 60.0	50.0	20.0	7.4	20.6	[1] 126.7
Number of persons injured	464	439	429	466	373	227
Per cent increase or decrease from previous year	[1] 5.7	[1] 2.3	7.9	[1] 24.9	[1] 64.3	[1] 24.7

STEAM LOCOMOTIVE BOILER[2]

	Year ended June 30—							
	1947	1946	1945	1944	1943	1942	1915	1912
Number of accidents	116	156	141	141	129	81	424	856
Number of persons killed	12	10	13	17	25	30	13	91
Number of persons injured	124	165	154	194	173	83	467	1,005

LOCOMOTIVES OTHER THAN STEAM

	Year ended June 30—					
	1947	1946	1945	1944	1943	1942
Number of accidents	40	38	29	17	15	9
Number of persons killed	2	..	1	..	..	..
Number of persons injured	41	56	40	23	18	9

[1] Increase.
[2] The original act applied only to the boiler.

Table III—Casualties Classified According to Occupation

STEAM LOCOMOTIVE ACCIDENTS

	Year ended June 30—									
	1947		1946		1945		1944		1943	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Members of train crews:										
Engineers	6	126	4	142	5	117	7	128	11	109
Firemen	6	159	4	184	9	183	11	181	10	143
Brakemen	1	37	..	46	2	61	2	67	4	47
Conductors	..	10	..	7	1	11	..	11	..	8
Switchmen	..	9	..	10	1	10	..	5	..	12
Roundhouse and shop employees:										
Boilermakers	..	3	..	1	1	10	2	5	..	4
Machinists	1	..	..	6	..	6	..	2	..	3
Foremen	..	..	..	3	..	6	..	2	..	..
Inspectors	..	1	..	1	1	..	1	2	..	..
Watchmen	..	2	2	4	..	1	..	1	1	3
Boiler washers	..	..	..	1	..	..	..	..	..	..
Hostlers	..	6	..	10	..	5	..	12	..	1
Other roundhouse and shop employees	..	8	..	3	..	4	1	4	..	4
Other employees	2	21	..	13	..	5	..	6	..	11
Nonemployees	..	82	..	8	..	10	1	40	1	28
Total	16	464	10	439	20	429	25	466	27	373

ACCIDENTS TO LOCOMOTIVES OTHER THAN STEAM

	Year ended June 30—									
	1947		1946		1945		1944		1943	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Members of train crews:										
Engineers	1	9	..	8	..	4	..	4	..	3
Firemen	..	21	..	14	..	14	..	4	..	9
Brakemen	..	5	..	3	..	1	..	1	..	1
Conductors	..	1	..	2	..	1	..	1	..	1
Switchmen	..	1	..	2	..	2	..	..	..	1
Maintenance employees	1	2	..	4	1	3	..	4	..	2
Other employees	..	2	..	5	..	8	..	1	..	1
Nonemployees	..	..	..	18	..	7	..	8	..	..
Total	2	41	..	56	1	40	..	23	..	18

undue heating occurs. In instances of low lubricating-oil pressure or abnormal heating, engines should be shut down promptly and the restarting of an overheated engine should not be attempted unless it is known that the engine has cooled to normal temperature and the cause of overheating has been found and remedied.

It is not uncommon for crankcase explosions to occur after overheated engines have been shut down and before the overheated parts have cooled sufficiently to avoid ignition of the vapor in the crankcase. The entry of air into the crankcase or other conditions may affect the vapor mixture to such extent as to change the explosive characteristics and explosion may occur before the overheated parts have cooled to below the flash point of the vapor which is variable in composition and unknown under the circumstances. It is therefore advisable for attendants or others present to depart promptly from close proximity to any engine that has been shut down because of smoke coming from the valve covers, incipient crankcase explosions or any excessive overheating, until cooling has occurred. The crankcase handhole covers or inspection covers or doors should not be loosened or removed until it is known that a sufficient interval of time has elapsed for cooling of any heat-affected parts below the flash or fire point of the contents of the crankcase.

Amended Rules

The appliances required by amended rules 106 (b), 153 (a), and 157 (c) and (d) to be installed on steam road locomotives the first time Class 3 repairs are applied, but not later than June 1, 1948, consist of an emergency brake valve located on the front of the tender, on the rear of the back wall of the cab, or adjacent to a cab exit if the cab is of the vestibule type; a device whereby the height or quantity of water in the tender feed-water tank may be ascertained from the cab or tender deck; and steam or a supply of auxiliary air to air-operated reverse gears.

Installation of these safety aids was started at or shortly after the time the order amending the rules was issued; some delays, spotty rather than general, were encountered because of shortage of materials and parts, but considerable progress is now being made. However, the following irregularities have been found in some of the installations and suitable action taken toward correction:

Emergency brake valve—Mounted on the rear of the back wall of the cab at such height as to be liable to catch the clothing of a person passing through the gangway.

Tender feed-water height indicator—Devices of the general type that consist of a vertical pipe, either inside or outside the tank, with a valve at the bottom manually operable from the top of the tank bulkhead by means of which water from the tank is admitted into the bottom of the pipe and the level indicated by water discharging from a series of holes, nipples, or street ells in the pipe, or nipples connecting the pipe to holes in the side plate of the tank. The water valve is subject to seizure and at times cannot be opened; the water valve leaks; provision is not made for indicating the lower levels of water in water-bottom tanks; discharge openings are closed by corrosion or foreign material, some being plugged with wood or pin grease and in some instances welded closed; the device is subject to becoming inoperative in cold weather due to freezing; discharge of water so near the tender vertical handhold and gangway steps that ice forms on these parts in cold weather; in some instances discharge of water is so located that it can be seen only by looking back through the side cab window when open or by extending the head out of the gangway.

Devices consisting of a gauge or liquid in a U-tube actuated by air pressure sufficient to balance a column of water equal in height to the level of the water in the tank—various irregularities of these devices have been found to be due to lack of proper maintenance, such as air screen or pipes plugged by foreign matter and leakage in air or water connections.

Various kinds or types of devices for ascertaining the height or quantity of water in the tender tank have been applied by different carriers, apparently in some instances without giving thorough consideration as to the suitability of the designs or constructions to effect the purpose of the commission's order establishing the amendment of the rule. Some of these devices have been supplanted with other devices and others will be modified as a result of experience under the particular services and locations where the locomotives are used; those found to comply with the intent and purpose of the rule will be continued in use.

As with other rules requiring the installation of locomotive devices or accessories, the choice of make, type, details of design, and method of application rests, for obvious reasons, with each carrier involved. The bureau does not undertake recommendation or approval of any particular design or any particular device but it is required that the purpose sought be reasonably accomplished.

Power reverse gear—The valve handle of the steam connection to an air-operated power reverse gear, where such supplementary means of operation is used, is required to be plainly marked and equipped with a handle or wheel of distinctive design. Suitable marking has generally been applied, but in some instances the handle is of the same size and design as used on other steam valves in cabs. It is the intent of the rule that the handle be of different design than that of the other valves on the locomotive and that all such handles used on locomotives of any particular carrier be alike.

Appeals—No formal appeal by any carrier was taken from the decisions of any inspector during the year.

Photo by Leonard A. McLean

A Southern Diesel switcher in South yards at Atlanta, Ga.

WORKABLE KNOWLEDGE AIM OF L. & N. PROGRAM

(Continued from page 45)

James B. Hill and George C. Howard, director of personnel, proposed it at a meeting of department heads and division superintendents at Louisville, Ky. At that time, the road's chief stated that learning of this sort was not entirely new to the road, but that it had never been placed on an organized or systematic basis. The following month, a representative group of the road's supervisory officers met with members of the department of education of the University of Kentucky and with representatives of the state department of education with a view to working out the techniques and contents of the training programs.

L. & N. men attending the three-day meeting included representatives of the personnel, operating, traffic, and advertising and publications departments, and ranged from division freight agents to track supervisors.

Supervisor Training

It was decided at this meeting that some 22 supervisory officers of the railroad, representative of the system, would receive training as conference leaders at the university. This was accomplished in an intensive five-day course in June. For better reception, the group was divided into two classes and two identical series of discussions were conducted simultaneously—one three-hour session for each group each morning and another each afternoon. Principal objectives of the five-day course were. (1) to evaluate and improve the personnel development program as tentatively established; and (2) to train those present as conference leaders.

To accomplish the former, the students discussed the proposed subject matter of the personnel training program step by step and made a number of suggestions resulting from their practical railroad experience. Many of these revisions have been incorporated into the long-term program.

The second objective—the training of conference leaders—was met by having each employee conduct one discussion otpic, at the conclusion of which he was rated by the other students and given opportunity to look over their opinions. The rating was based upon such factors as preparation, manner of presentation, sense of "timing," success in holding group attention, general manner and appearance, and effective use of visual aids.

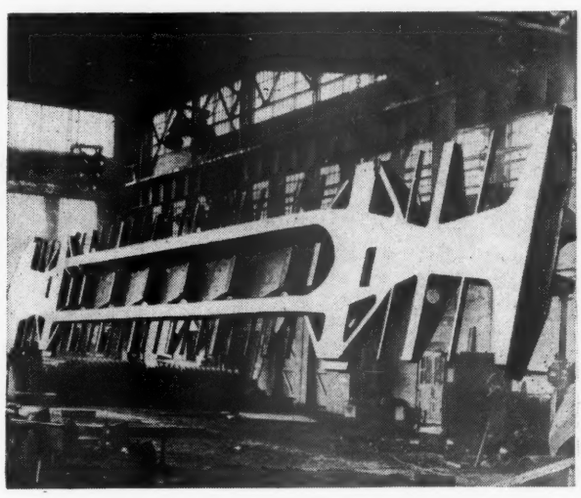
The program for public-contact employees was next developed. In July, the first "School for Diplomats" was held at Birmingham, Ala., for 25 employees—ticket agents, clerks, conductors and trainmen—a cross section of division public-contact personnel. Conferences were conducted by faculty members of the University of Alabama's College of Education and a representative of the Alabama state department of education. Topics covered were: (1) knowledge and appreciation of job; (2) cooperation with other employees; (3) selling service; (4) development of personality; (5) loyalty to company; (6) telephone manners; (7) handling complaints and (8) how to analyze and understand patrons. Full discussion by the participants was invited, and reached such a momentum that the group was unable to consider fully all of the topics set before it.

Later in July, employees met at Mobile, Ala., and emphasized those topics which the Birmingham group had been unable to cover. This second "break the trail" course was called popularly "the 636 Conferences" because those present had a total of 636 years' service with the road. Meanwhile, another set of top-ranking officers of the company participated in a 10 clock-hour series of conferences in Louisville on the general subject of management and personnel relations, under the direction of the University of Alabama.

General Supervision Program

The personnel development program officially got under way on September 29 with training conferences for supervisory officers opening on every division, except at Montgomery, Ala., Mobile, and New Orleans, La., where a hurricane disrupted plans. In all, several hundred supervisory officers participated in regular confeences at key points on the road. Groups were led by conference leaders who had received previous training at the special conferences with the University of Kentucky faculty members. Each group was composed of about 15 employees, consisting of a cross section of the entire supervisory personnel. Each session lasted about two hours and each course consumed about 12 sessions.

In order that they might subsequently serve as conference leaders for that portion of the L. & N.'s program dealing with the training of public-contact employees, some 15 key freight and passenger traffic officers of the railroad attended an institute at the University of Alabama during the early part of December. Plans of the road's personnel department call for inauguration of regular conference sessions for public-contact employees early in 1948.



Welded underframe, fabricated by Lukenweld division of Lukens Steel Co., was used by Baldwin Locomotive Works at Eddystone, Pa., in the construction of a Diesel-electric locomotive for the C. M. & O.

GENERAL NEWS

Emergency Board Opens Hearings at Chicago

Carriers label union rule changes "wage demands in disguise"

The Presidential emergency board investigating the wage and rules dispute between the railroads and the three brotherhoods representing the engineers, firemen, and a small faction of the switchmen, opened hearings at Chicago on February 2. The three brotherhoods involved in the dispute are described as "holdout" unions because they have refused to accept an offer of 15½ cents hourly which was considered a satisfactory wage increase by 90 per cent of the railroad workers, and because they declined the carriers' offer of arbitration and set a strike date (February 1) after mediation and negotiation had failed to bring about a settlement.

The emergency board proceedings are taking place on the ninth floor of the Masonic Temple at 32 West Randolph St., with Chairman William M. Leiserson presiding. Employees and carriers first presented their opening statements, after which the brotherhoods began presentation of their argument, for which purpose each party to the dispute has been allowed 30 hours.

In the opening statements for the carriers, Howard Neitzert, counsel, charged that the 25 rule changes (the employees are persisting in only 25 of their original 44 demands) would add a half billion dollars annually to the 30 per cent, or $3 a day, minimum wage increase sought by the unions. He asked the board to recommend adoption of the carriers' 15 counter-proposals (the carriers are persisting in 15 of the 29 rule changes which they originally proposed) in order to bring about the revision of certain working agreements that are "excessively onerous, burdensome and expensive."

Mr. Neitzert deplored existing rules which restrict the use of technological development, and cited some instances of stupid handling which result from their observance. "For example," he said, "on some roads existing rules and practices require a maintenance of way employee to operate a clam shell but require an engineer to move the clam shell from one position to another, with the result that the maintenance of way man operates the machine for a few minutes, then climbs down off the machine; the road man climbs up on the machine and moves it a few feet; then he climbs down off of the machine and the maintenance of way man climbs up and operates the machine again; then the maintenance of way man gets down and the road man gets up; and so it goes, on through the day, up and down, with more getting on and getting off than work done."

Mr. Neitzert told the fact-finding board that, if the union-proposed rules were adopted, because of their ambiguity, uncertainty and overlapping provisions it "would require at least 20 years of litigation to find out what the proposals mean and how they will be applied." Mr. Neitzert asserted that, "The true purpose of the unions' proposals is to increase basic wage rates, to make work, and to require the employment of additional men that are not required for the proper and efficient operation of the railroads."

Costs Astronomical — Guy W. Knight, counsel for the carriers, averred that the wage demands before the board would cost the carriers 166 million dollars annually, and that if similar increases were applied to the other railroad workers, the cost would be 1 billion, 483 million dollars—about 868 million dollars in excess of the cost of a 15½-cent hourly wage increase. Speaking of the rule demands, Mr. Knight stated that, "These men are seeking rules which could probably not be confined to the employees before the board, and if the railroads had to apply to conductors, trainmen and switchtenders the proposals which would also effect them, a total of about 500 million dollars would be added to the railroads' operating costs, in addition to $1,483,000,000 in wages. Thus, the effect of granting what this 10 per cent of railroad employees are asking," Mr. Knight continued, "would, if applied to their fellow workers, increase the operating costs of the railroads by about 1 billion 900 million dollars a year."

Counsel for the carriers stressed the need for stability in the cost structure of the railroads and stated that "pointless see-sawing" between increased wages and increased rates must be halted.

WHO ARE THE "FACT-FINDERS?"

Dr. William M. Leiserson heads up the three-man emergency board created by President Truman on January 27 to investigate and report on the wage and rules dispute between the nation's carriers and the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen & Enginemen and the Switchmen's Union of North America. Judge George E. Bushnell, chief justice, Supreme Court of Michigan, and Professor William W. Wirtz, Northwestern University School of Law, complete the board.

Dr. Leiserson, of Washington, D. C., is a well-known economist associated with John Hopkins University. He was chairman of the arbitration board which sat last September and awarded 15½ cents an hour to the railroad non-operating employees (a like offer by the carriers was declined by the three brotherhoods party to the present dispute). Dr. Leiserman served as a member of the National Labor Relations Board from 1939 to 1943. He has served as neutral arbitrator in three previous disputes involving grievances of railroad employees, and was a member of the presidential emergency board which handled the wage case of the air line pilots in 1946.

Judge Bushnell, of Highland Park, Mich., has served as referee for the third and fourth divisions of the National Railroad Adjustment Board and as neutral arbitrator in the Atchison, Topeka & Santa Fe yardmasters' rules change dispute in 1946. He also served on the emergency boards which handled the air line pilots' wage increases in 1946, and a dispute of firemen and conductors on the Bingham & Garfield in 1947.

Professor Wirtz, of Winnetka, Ill., served as general counsel, Board of Economic Warfare, from 1942 to 1943; acted in various capacities with the War Labor Board from 1943 to 1945; and was appointed chairman, National Wage Stabilization Board, in January 1946.

Calls Rate Conferences Link Between Shippers and Carriers

Rate conferences are "the connecting link between our transportation system and its users," and their continued operation "is vital to the welfare of shippers, carriers and the general public," the Transportation and Communication Department of the Chamber of Commerce of the United States said in a pamphlet issued this week to explain why the chamber supports legislation like that proposed in the pending Reed-Bulwinkle bill to stay the operation of anti-trust laws with respect to such agreements and other carrier joint actions approved by the Interstate Commerce Commission. The pamphlet, entitled "Why Carrier Agreement Legislation" includes an assertion that "Congress should clarify the law so that conferences can continue to serve the

public needs under suitable public regulation."

It is also asserted that without conferences carriers could not effectively establish through routes and shippers and travelers would not have their "present wide choice" of competitive routes; carriers would be unable to work out reasonable non-discriminatory rate schedules, and the resultant burden upon the I. C. C. would be "beyond the capacity of any government body"; shippers would have little knowledge of proposed rate changes and small shippers especially would have "scant protection against special rates that might be established by individual carriers"; small motor carriers would be unable to develop adequate rate structures; common tariffs or rate schedules would be impracticable, yet shippers "could not maintain files of all individual carriers' tariffs"; and "arrangements concerning facilities and service would be handicapped and improvement of service would be impaired."

The pamphlet went on to discuss in detail various phases of the conference situation and the need for legislation because of the position taken by the Department of Justice in recent years. In the course of such discussion it was pointed out that provisions of the Reed-Bulwinkle bill are not unprecedented, since it would "establish for rail, motor, water and other carriers regulated by the I. C. C. the same treatment . . . as is accorded the air lines under the Civil Aeronautics Act of 1938 and the ocean steamship lines under the Shipping Act of 1916."

Harriman Sees Continued Heavy Strain on Railroads

"All indications point to the continuation of a heavy strain on the nation's railroads," Secretary of Commerce Harriman said in his second quarterly report under the Second Decontrol Act of 1947. That act requires the secretary to make quarterly reports with respect to wartime economic controls still in effect, including President Truman's power to allocate "the use of transportation equipment and facilities by rail carriers."

The present report recommended continuation of the transport controls maintained by the Office of Defense Transportation to which the President has delegated the authority involved. Late last year Congress extended the expiration date of that authority until February 28, 1949, the previous expiration date having been February 29, 1948. "Until the supply-demand situation eases with respect to domestic freight cars," Mr. Harriman said, "it will be necessary to maintain the controls which, with the cooperation of shippers and railroads, have contributed to the attainment of a degree of efficient utilization of freight cars unmatched in the history of railroading."

Previously, the secretary had referred briefly to the traffic and performance of the railroads during 1947. "Despite occasional delays in the movement of essential freight because of car shortages," he commented, "the transportation record made by the railroads in 1947 stands out as a remarkable achievement." Also, Mr. Harriman thought it "safe to say" that "the avoidance of a serious breakdown in freight carrying services was due in substantial degree to the continuation of measures leading to a high rate of efficiency in railroad operations." In this connection, the secretary recalled that his previous report had described "the significant role" played by O. D. T. loading regulations, and he went on to say that "another important result" of O. D. T. activities has been the "sharp reduction in freight-car turn-around time."

As to freight car production, Mr. Harriman outlined the cooperative arrangements among O. D. T., the steel industry and the car builders. "The achievement of the 10,000-a-month freight car building program in 1948," he said, "will contribute importantly to an improvement in the rail transportation situation; however, it is doubtful whether even this rate of production will permit the railroads to meet all demands."

With respect to the fuel situation, Mr. Harriman saw indications that "critical shortages . . . occasioned in part by a shortage of both coal cars and tank cars, may develop during the winter months." He added that there is now a shortage of approximately 5,000 tank cars—"but this is only one of the factors contributing to the present shortage of petroleum products in various sections of the country."

"Pipe lines, barges, and ocean tankers," he continued, "play the leading role in the transportation of petroleum and its products. In some cases delays in pipe-line construction have resulted in the use of tank cars to transport crude oil from a point of production to the refinery or pipe-line terminal. With the completion next spring of pipe lines now under construction in west Texas, a large number of tank cars will be made available for other services. The accelerated car building program will also afford some relief. During the next few months, however, it may become necessary for O. D. T. to exercise controls over tank cars as a measure of alleviating critical fuel shortages in certain localities."

Mechanical Division Scholarship at Stevens

The Mechanical Division, A. A. R., because of the demand for mechanical engineers brought about by the interruption of training during the war years, is calling especial attention to its scholarship at the Stevens Institute of Technology. The scholarship, established in 1891, has a total value of $1,200 and is available in September to sons of members of the Mechanical Division. The student selected will be eligible to receive the benefits of other scholarships and load funds if the need arises in his upper class years.

Stevens Institute of Technology, a college of general engineering, offers but a single course leading to the degree of mechanical engineer. Training, however, includes instruction in the fundamentals of electrical, civil, chemical engineering, and management. Detailed information may be obtained from the Director of Admissions, Stevens Institute of Technology, Hoboken, N. J. Applications for the scholarship should be in the hands of A. C. Browning, secretary, Mechanical Division, Association of American Railroads, not later than March 31, 1948.

Correction—Operating Statistics

In the table Freight Operating Statistics of Large Steam Railways—Selected Items for the Month of October 1947 Compared with October 1946, which appeared on pages 80 and 81 of the January 31 issue of *Railway Age,* two adjustments are required. Under Southwestern Region, page 81, figures listed for the year 1946 are in reality the figures for 1947, and vice versa. Also, the name International Great Northern should align with the figures in the row immediately preceding.

Splawn Confirmed for I. C. C.

The Senate on January 30 confirmed President Truman's reappointment of Walter M. W. Splawn for a new seven-year term, ending December 31, 1954, as a member of the Interstate Commerce Commission. The nomination, which the President sent to the Senate on January 14, was reported favorably by the committee on interstate and foreign commerce on January 28. Dr. Splawn has been a member of the commission since 1934.

Women Railway Employees

Class I railways had 68,486 women employees as of the middle of October, 1947, a decrease of 2,214 from the mid-July, 1947, total of 70,700, and the proportion of women employees to total employees fell from 5.11 per cent to 5.05 per cent, according to the latest report on the subject by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The total of 68,486 women employees as of the middle of October, 1947, compares with an October, 1946, total of 75,860. The totals of all employees at the same times were 1,356,616 and 1,376,245, respectively.

As compared with mid-July, 1947, there were decreases in the mid-October, 1947, figures for women employees in virtually all employment groups. The largest drop was in the professional,

clerical and general category, for which the mid-October total was 54,894, as compared with the mid-July total of 56,270. There were 6,565 women employed in maintenance of equipment and stores, as compared with 6,792 in mid-July; 6,794, as compared with 7,385, in transportation work, other than train, engine and yard; and 151, as compared with 165, in maintenance of way and structures.

Other mid-October, 1947, tabulations show 18 women in the executives, officials and staff assistants group; 24 among yardmasters, switchtenders and hostlers; and 40 in train and engine service.

Lets New England Truckers Keep Density Classification

Division 2 of the Interstate Commerce Commission has ruled that continued use by New England common-carrier truckers of their density-type classification will not be unlawful. The division's report is in Ex Parte No. MC-22, a proceeding instituted by the commission 10 years ago.

Class rates of the New England truckers were also involved, and in that connection the division said that new scales that were proposed by the New England Motor Rate Bureau, increased by 6 per cent, would be reasonable. "Our objective," the report said, "is to prescribe bases of reasonable class rates related to distance which will enable respondents to earn revenues on class-rate traffic approximately the same as those produced by the class rates presently in effect. The scales proposed by the bureau, increased by 6 per cent, should produce this result." The rates involved apply between points in New England and between points in that territory and points in eastern New York and northeastern New Jersey.

The classification which the division found not unlawful is that in which the New England truckers have sought to reflect the transportation characteristics of commodities in carriage by truck, the element of shipping density being emphasized. It was supported by motor rate bureaus in New England, but American Trucking Associations, among others, contended that it should be brought in line with the national classification maintained throughout the rest of the country.

The division described the national classification as one which was framed originally with disregard of almost all elements of classification construction "except competition between the motor carriers and the railroads"; although its development in recent years has reflected some recognition of "characteristics of special importance to motor carriers." Meanwhile, the report also said that the trial which New England truckers and shippers have given the density type classification "has resulted, in the main, to their mutual advantage." It pointed out further that the commission is now engaged in a general investigation of motor classifications throughout the country, that inquiry being the Ex Parte No. MC-C-150 proceeding.

R. & L. H. S. Bulletin No. 71

The first article in this bulletin is a history of the San Diego & Arizona Eastern and its constituent companies. It is accompanied by numerous illustrations of motive power and rolling stock, as well as a locomotive roster. It is followed by an article commemorating the centennial of the Montreal and Lachine Rail Road; a chapter on the Atlantic & Great Western adapted from Edward Hungerford's book "Men of Erie"; a biography of George Stephenson; an article on the Virginia Southwestern Railroad System at War, 1861-1865; and a list of the railroad paper money in the collection at the Baker Library at Harvard Business School. Copies of the Bulletin are available from the Society, Baker Library, Harvard Business School, Boston, Mass. The price to members is $1, and to non-members, $2.

Atomic Age Comes to RR Explosives Tariff

Interstate Commerce Commission regulations applying to the shipment of radioactive materials are published in Agent H. A. Campbell's Freight Tariff No. 4, effective January 25, 1948, covering the transportation of explosives and other dangerous articles by freight. This item, appearing in the tariff for the first time, defines radioactive material as any material or combination of materials that spontaneously emit ionizing radiation. Shipments are grouped in three classes according to the type of rays emitted at any time during transportation.

Two new "dangerous-article" labels showing handling instructions are described in the tariff.

Emergency Board Report

The White House has made public a report which President Truman received on January 29 from the emergency board which he appointed to investigate a dispute between the Akron & Barberton Belt and certain of its employees represented by the Brotherhood of Railroad Trainmen. The dispute involved the brotherhood's demand for a working rule providing for an arbitrary payment in connection with air-hose work, and the board recommended that the proposal be dropped.

Such a rule, it said, is not warranted by any special conditions obtaining upon the A. & B. B. and is inconsistent with prevailing practices in the railroad industry. The proposed rule stipulated that "when yardmen are required to couple air hose in connection with their switching, or in handling of their trains or cut of cars, they shall be allowed an arbitrary payment of one hour for such service, except that, yardmen may, without arbitrary payment, couple air hose between engine and head car, between caboose and rear car, at crossings which have been cut for rail, highway or street traffic, between cars where necessary double is made from one track to another, or between cars where the train or cut of cars have parted."

The board was composed of R. W. Woolley, Washington, D.C., chairman; Huston Thompson, also of Washington; and Walter Gellhorn, of New York.

Figures Show Cost of Providing Porter Service for the Public

Providing porter service is an expensive part of the many conveniences a railroad provides for its passengers, according to a recent statement by

HANDLE CAREFULLY
RADIOACTIVE MATERIAL
CLASS D POISON
Group I or II
NO PERSON SHALL REMAIN WITHIN THREE FEET OF THIS CONTAINER UNNECESSARILY
DO NOT PLACE UNDEVELOPED FILM WITHIN 15 FEET OF THIS CONTAINER
Principal radioactive content
Activity of contents
Radiation units from package No.
Not more than 40 units shall be loaded in one car or one motor vehicle or held at one location.
This is to certify that the contents of this package are properly described by name and are packed and marked and are in proper condition for transportation according to the Regulations prescribed by the Interstate Commerce Commission.
Shipper's name required hereon for shipments by EXPRESS

Diamond-shaped label for use in shipment of certain radioactive materials must be printed in red letters inside a red-line border measuring 3½ in. on each side

Year Ended	Payroll	Payroll Taxes	Total Expense	Tag Revenue
4/22/43	$28,271.19	$1,713.75	$29,984.94	$24,947.30
4/27/44	24,243.53	1,514.22	25,757.75	19,582.30
4/26/45	25,028.17	1,564.64	26,592.81	18,418.30
4/25/46	28,056.85	1,773.73	29,830.58	18,676.60
4/25/47	34,276.63	2,436.20	36,712.83	19,619.50

J. W. Rimmer, vice-president in charge of traffic for the Boston & Maine and the Maine Central. Once, "red caps" made their livings from the tips presented by the traveling public, but, Mr. Rimmer said, those days ended in 1938 when porters were changed to salaried employees by "governmental edict."

In 1938 station porters went on railroad payrolls at 25 cents an hour. Later the same year their hourly wages were increased to 30 cents. In March, 1941, their wages went up again, this time to 36 cents an hour, and in September of the same year a further increase of 9 cents an hour was granted. Since then, six additional increases—the last, for 15½ cents, occurring on September 1, 1947—have brought the porter's hourly wage, paid by the railroads, to 91 cents. This, of course, does not include tips.

When the "red caps" went on salary the railroads placed a charge of ten cents on each article handled by the porter. Porters were supplied with numbered tags to attach to each article, and for each tag used they were required to turn in to the railroad a dime. Although the charge for each article has been increased to 15 cents, a large amount is still being paid by the B. & M. and the M.C. for supplying porter service to the public, Mr. Rimmer said.

"Some travelers seem to think the railroads are making a profit on the work of 'red caps' or station porters," he explained. "On the contrary, even with the 15-cent charge per bag 'red cap' porter service will still cost the railroads a substantial amount each year. For instance, here are the figures for the past five years at the North Station in Boston:

"So it can be seen that the cost of 'red cap' service is considerable to the railroad," Mr. Rimmer concluded, "and that the money which the roads receive from the 'tagging' is nowhere near sufficient to pay for the services of the porters."

Seeks Waiver of Truck-Weight Limitations During Fuel Crisis

Governors of all states suffering petroleum shortages have been asked by Colonel J. Monroe Johnson, director of the Office of Defense Transportation, to grant weight-law exemptions authorizing carriage of loads commensurate with petroleum tank truck capacity during the remainder of the winter months.

In urging the governors of the affected states to grant temporary exemptions to tank trucks under their weight laws, Colonel Johnson said that all petroleum transportation facilities must be used at maximum efficiency during the present oil shortage. Adding that a similar approach to increasing utilization of transportation facilities was successful during the war, Colonel Johnson expressed confidence of the governors' cooperation during the present crisis.

U. P. Offers Help to Governors In Reducing Crossing Accidents

In a telegram to the recent Western Governors' Safety Conference at Sun Valley, Idaho, George F. Ashby, president of the Union Pacific, asked that "great weight" be given to the subject of accidents at railroad crossings. He declared that the U. P. "shall be glad to cooperate in every possible way and furnish material and personnel for the furtherance of a campaign of education of the public and in schools and organizations, looking to adoption of laws and regulations that will greatly reduce this unnecessary toll."

The U. P. president also pointed out in his telegram that persons who "wantonly disregard every factor of safety and precaution" and drive onto tracks in the face of moving trains, or drive into trains moving over crossings, not only endanger the occupants of the vehicles but also create the hazard of derailing and wrecking passenger trains occupied by as many as 300 passengers. Mr. Ashby also sent copies of his wire to the 13 governors of states served by the railroad.

Railroads Ask I. C. C. to Deny P. O. Petition in Mail Pay Proceeding

The railroads this week asked the Interstate Commerce Commission to deny a petition filed by the Post Office Department to vacate and set aside the commission's order of December 4, 1947, approving a temporary increase of 25 per cent in railroad rates for handling mail. The Post Office Department's petition was reported in *Railway Age* of January 31, page 62. The increase became effective February 1, and was retroactive back to February 19, 1947.

According to the railroads, all principles underlying the petition of the Post Office Department have been fully discussed on the record, upon brief and in oral argument. All issues raised by the department, they said, have unquestionably had the full consideration of the commission.

Asserting that every opportunity was given the department to present its case, the railroads held that the "labored endeavor" of counsel for the department to make a record upon which he could plead failure to accord a fair hearing was "met at every turn by the presiding commissioner in according full and fair opportunity to present evidence and to cross-examine witnesses."

Allied Van Members Can't Hire Independents for Allied Work

Conditions under which the Interstate Commerce Commission authorized Allied Van Lines, Inc., to acquire the certificates of its former hauling agents, and thus build for itself nationwide rights as a common-carrier trucker of household goods, do not permit those agents to employ independent haulers of household goods as sub-agents for the handling of Allied business. Division 4 of the commission has so informed Allied in a report which approves conditionally its purchase of the operating rights of four additional hauling agents.

The division's report recalls that the commission decision approving previous similar acquisitions by Allied of its agents' rights had imposed a condition requiring the cancellation by Allied "of all contracts and agreements" between it and the hauling agents who were not participating in the new set-up. Meanwhile, it was brought out that independent haulers of household goods had been acting as sub-agents for Allied, usually through equipment leasing arrangements with Allied agents.

Counsel for Allied took the position that the consent decree of December, 1945, in the anti-trust complaint against Allied precluded the latter from restricting the right of its agents to employ sub-agents. The division did not pass on that contention, but it held that the "addition of agents by Allied, which are themselves carriers of household goods," is prohibited by the foregoing condition. Allied's agents, the report also said, are now "merely its employees to move its traffic, and arrangements made by them on its behalf must be imputed to its knowledge."

At the same time, the division made it plain that it had no intention of preventing Allied from making arrangements to provide for a "bona fide augmentation of its equipment." It added, however, that the Allied set-up made it difficult to distinguish between "mere augmentation of equipment" and the engaging by Allied of an additional agent. The division undertook to take care of the situation by making its approval of the present transactions subject to a condition stipulating that neither Allied nor its agents should enter into any arrangement with any carrier of household goods for augmentation of Allied's equipment, "except under terms whereby the equipment shall be under Allied's exclusive domination and control for the entire period that its traffic is being transported in said equipment under its operating rights, and, particularly, that one of its regular employees or a regu-

lar employee of one of its so-called hauling agents shall control and operate said equipment during that entire period."

The present transactions involve Allied's acquisition of rights of the Albany Transfer Company, Albany, Ga., Capitol Van Lines, Washington, D. C., Eldredge & Bourne Moving & Storage Company, Falmouth, Mass., and M. M. Smith Storage Warehouse, Fayetteville, N. C. The title case was docketed as No. MC-F-3437.

39 Non-Certificated Air Carriers Face Suspension by C. A. B.

Letters of Registration held by 39 non-certificated irregular air carriers will be suspended by the Civil Aeronautics Board unless those lines file their quarterly operational reports with the C. A. B. on or before February 13, it was announced this week.

In providing for the issuance of Letters of Registration to non-certificated carriers, the C. A. B. requires such lines to file quarterly operational reports on or before the twentieth day of every October, January, April and July. This week's announcement said that noncompliance by the 39 carriers with this requirement while continuing to engage in air transportation "seriously impairs and interferes" with the "proper discharge" by the C. A. B. of its duties and functions under the Civil Aeronautics Act.

Freight Car Loadings

Loadings of revenue freight for the week ended January 31 totaled 727,038 cars, the Association of American Railroads announced on February 5. This was a decrease of 44,954 cars, or 5.8 per cent, below the preceding week, due to weather conditions affecting industrial and railroad operations, a decrease of 108,013 cars, or 12.9 per cent, below the corresponding week last year, and an increase of 3,737 cars, or 0.5 per cent, above the comparable 1946 week.

Loadings of revenue freight for the week ended January 24 totaled 771,992 cars, and the summary for that week as compiled by the Car Service Division, A. A. R. appear in table below.

In Canada.—Carloadings for the week ended January 24 totaled 71,724 cars as compared with 76,307 cars for the previous week and 70,502 cars for the corresponding week last year according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 24, 1948 ..	71,724	34,491
January 25, 1947 ..	70,502	38,385
Cumulative totals for Canada:		
January 24, 1948 ..	275,815	131,682
January 25, 1947 ..	264,070	138,515

C. & O. Stockholder Jackson Would Intervene in N. Y. C. Case

George S. Jackson, of 230 West End avenue, New York, a Chesapeake & Ohio stockholder, whose criticisms with respect to various policies and activities of that road and the Federation for Railway Progress were reported in the *Railway Age* of January 31, page 50, has asked the Interstate Commerce Commission for permission to intervene in the proceedings involving the proposed tie-up of the New York Central with the C. O.

The proceedings, which have been set for oral argument at Washington, D. C., on February 27, involve the petition of C. & O. and Alleghany Corporation for release of the former's 400,000 shares of N. Y. C. stock from the requirement whereby they have been deposited with the Chase National Bank as independent voting trustee (under the trusteeship created pursuant to the commission's June, 1945, decision approving Alleghany's control of the C. & O.), and applications of Robert R. Young and Robert J. Bowman, chairman and president, respectively, of the C. & O., for authority to serve on the N. Y. C. board of directors while continuing to hold C. & O. directorships and their present positions with that road. Commission denial of the petition and applications has been recommended by C. E. Boles, assistant director of the commission's Bureau of Finance, as reported in *Railway Age* of December 13, 1947, page 64.

Mr. Jackson, whose petition to intervene has been inserted in the commission's correspondence file of the C. & O.-Alleghany petition, advised the commission that he desires to produce and cross-examine witnesses and to be heard in oral argument. The petitioner further identified the petitioner and his interest in the C. & O. by stating that he and his wife, Rose S. Jackson, are the joint owners of 550 shares of C. & O. common stock and also own smaller amounts of common stock of other railroads. Mr. Jackson said that he is a professional engineer licensed by the state of New York.

Although the commission had not officially acted on the petition when this issue went to press, the same file contained a reply to Mr. Jackson from commission secretary W. P. Bartel, who stated that "we can express no opinion as to the extent to which the commission will permit you to participate in the cases." Mr. Bartel also noted that the purpose of oral argument is to afford parties an opportunity to argue the case orally on the record as made, and not for the purpose of hearing testimony.

Rehabilitation Alaska Railroad Recommended by House Group

Rehabilitation of the Alaska Railroad and the establishment of a system of accounts for that carrier which would offer an opportunity for a correct analysis of its operations are among the recommendations set out in an interim report which the House has received from its committee on interstate and foreign commerce. Other recommendations call for (1) construction of civil airport facilities at Fairbanks and Anchorage, and enlargement within the territory of other air navigation aids; (2) improvement of the existing highway system; (3) arrangements assuring adequate and uninterrupted coastal water communications with the United States and within the territory; (4) creation of a distinct or interdepartmental transportation authority for the territory; and (5) consideration by the departments and committees concerned of the construction or rehabilitation of pipe-line facilities.

The investigation out of which the report has come was conducted by the committee as part of the "national transportation inquiry" begun in 1945. The special attention was given to

Revenue Freight Car Loadings

For the Week Ended Saturday, January 24

District	1948	1947	1946
Eastern	142,619	152,228	133,861
Allegheny	161,346	171,393	127,123
Pocahontas	66,625	72,646	61,838
Southern	130,709	140,054	126,441
Northwestern	81,401	90,083	80,005
Central Western	127,649	131,670	119,726
Southwestern	61,643	63,854	59,560
Total Western Districts	270,693	285,607	259,291
Total All Roads	771,992	821,928	708,554
Commodities:			
Grain and grain products	44,682	56,732	53,868
Livestock	9,460	14,033	14,970
Coal	181,410	193,282	183,470
Coke	15,219	14,042	7,445
Forest products	42,804	45,980	35,589
Ore	12,908	12,468	6,078
Merchandise l.c.l.	102,809	116,936	116,811
Miscellaneous	362,700	368,455	290,323
January 24	771,992	821,928	708,554
January 17	811,286	828,060	749,443
January 10	831,447	830,953	772,888
January 3	682,038	687,428	652,978
December 27	.....	599,357	627,967
Cumulative total, 4 weeks	3,096,763	3,168,369	2,883,863

Alaska because of the committee's feeling that transportation problems there were of "immediate significance" to national defense and the development of the territory.

Discussing the committee's findings from the House floor on January 27, Representative Wolverton, Republican of New Jersey, and chairman of the committee, declared that the Alaska Railroad has not been "operated best to induce expansion of the territory." Asserting that the road's rates are "much too high," he said that "while the continued civilian traffic would not appear to warrant the current $50,000,000 rehabilitation program, this appears necessary for defense purposes." On such basis, he added, the committee concluded that the future rate structure should be adjusted so that military, not civilian traffic, bears the burden of the project improved to standards necessary to support the military tonnage.

Noting that the report is "frankly critical" of the success of the past rail and highway programs in developing the territory, the committee chairman emphasized the committee's conclusions that '"aviation is destined to remain dominant in the transportation system of Alaska,'" Mr. Wolverton added that "adequate air facilities are necessary not only since the airplane offers accessibility to places not otherwise easily reached and the airplane is competitive economically with other forms of transportation, but also owing to considerations of national defense."

The committee observed that it has been "struck" by the almost complete inability in the case of the Alaska Railroad, as in that of the operations of the Inland Waterways Corporation and other government corporations, to determine actually what it is costing the government to engage in such enterprises. In advocating rehabilitation of the railroad, the committee also urged a review by the various government departments and committees concerned of the "entire railroad picture."

Turning to an assertion by the railroad that the switch from coal-burning locomotives to Diesel power would result in economy in operations, the committee held that, although there would be certain advantages to such conversion, it is not fully convinced that the effect of railroad use of fuel oil is fully desirable. In this respect, it noted the ocean haul involved in furnishing the oil supply, the present petroleum crisis and the fact that the railroad can obtain coal from along its right-of-way.

$452,288,854 for Highways

The Independent Offices Appropriation Bill for the fiscal year ending June 30, 1949, which was reported to the House from its appropriations committee on January 30, carried $459,588,854 for the Public Roads Administration, including $452,288,854 for the so-called federal-aid post-war highway system and $7,300,000 for grade crossing elimination and protection work. For the current fiscal year ending next June 30, P. R. A. received $264,000,000, which included $247,711,146 for the post-war system and certain other items not included in the proposed appropriations for fiscal 1949, i.e., $10,288,854 for the former federal-aid highway program, which the post-war system supplants, and $3,000,000 each for federal-aid secondary and feeder roads and public lands highways.

The $7,300,000 proposed for the elimination and protection of grade crossings will take up in part the pre-war authorizations for that work. President Truman's fiscal 1949 budget explained that if this $7,300,000 is appropriated there will remain authorization for $10,000,000 more to be appropriated for grade crossing work in subsequent years. Meanwhile, grade crossing work is covered in the post-war program under that provision of the applicable legislation which permits the use for such work of up to 10 per cent of the funds made available for highways.

The $459,588,854 recommended by the committee for P. R. A. represents a reduction of $1,000,000 under the $460,588,854 proposed in the President's budget, the latter having contemplated the expenditure of the additional $1,000,000 for a testing and research laboratory. In view of the high cost of construction, "it is believed that this item can be deferred to a later date," the committee's report said of the proposed laboratory. The report also revealed that as of December 1, 1947, programs and projects submitted by state highway departments were estimated to cost $1,931,981,000 of which the federal government's share would be $976,877,000.

Appropriations Committee Cuts I.C.C.'s Fiscal 1949 Budget

Appropriations totaling $10,819,317 to cover Interstate Commerce Commission activities during the fiscal year ending June 30, 1949, were provided in the Independent Offices Appropriation Bill as it was reported to the House of Representatives from its committee on appropriations on January 30. This would be $409,683 less than the amount ($11,229,000) recommended in President Truman's budget, but $76,317 more than the $10,743,000 which the commission has had during the current fiscal year.

The entire committee cut was taken from the $9,466,000 proposed in the budget for the commission's "general expenses," which include the cost of all its regulatory activities except those relating to railroad safety and locomotive inspection. For those the bill would provide the amounts recommended in the budget—$908,000 for "railroad safety," and $615,000 for locomotive inspection, the former being the same as the current fiscal year's appropriation and the latter an increase of $10,000. Also left unchanged by the committee were the budget items of $205,000 for the commission's printing and binding, and $35,000 for penalty-mail costs.

The committee's report on the bill said that the amount proposed for the commission would provide funds for continued operation "on the current year basis," with $56,317 additional to take care of staff promotions. "Funds for this commission," it added, "have been increased rather substantially during recent years. The number of employees on the rolls is well below the number authorized, and it is not believed that a further expansion is warranted at this time in view of world conditions. Also, the committee has received and will consider in a subsequent bill a budget estimate of $445,000 for the Office of Defense Transportation for work in connection with freight car production and allocation."

With the reporting of the bill, the committee made public the record of hearings with respect to the proposed appropriations which were held in December before one of its subcommittees. At those hearings, Commissioner Mahaffie emphasized that the increased amounts sought included no funds for "new functions or activities," but were "required for two principal reasons, namely, to handle the increased work anticipated during 1949 based on the present outlook, and to raise the level of enforcement of the requirements of the Interstate Commerce Act, related and supplementary acts, and the rules and regulations prescribed by the commission thereunder, to a point approaching what it was before the war."

Discussing the "general railroad picture," Mr. Mahaffie said that "at the moment, and for some time past, perhaps the most critical thing in the transportation set-up has been the failure of transportation—failure to provide in full measure the transportation the country requires." Further comment on this situation was made by Commissioner Johnson, who is also director of O. D. T. Colonel Johnson cited recent statistics of performance to indicate how the railroads had "developed greater efficiency," and he predicted that in "a year or two" new-car deliveries will have got far enough ahead of retirements to "materially" increase the supply—if production of 10,000 cars a month were attained in January and 14,000 by July.

The O. D. T. director said the steel people are very generous," but he pointed out that each car builder "has to have a balanced inventory." He also said that new cars now being delivered were "very much improved" as compared with pre-war cars. In a brief discussion of the petroleum situation, Colonel Johnson told the subcommittee that the "bottleneck in fuel oil is the supply . . . and increased demand." He added that more petroleum could be transported if it were produced.

Of the outlook for railroad transportation in 1948, the O. D. T. director said that the situation would be like that of 1947, "but in order to have it as good we have still to increase efficiency and can." As to this year's grain movement, he said: "We will get it moved; we will be able to take care of it with some trouble and labor and with a spot shortage here and there." In this connection, Colonel Johnson recalled that in 1947 the railroads moved the "biggest wheat crop in our history with less complaint" than in 1946.

Among other matters in which the subcommittee showed interest was the waybill study being carried on by the commission's Bureau of Transport Economics and Statistics. Director W. H. S. Stevens of the bureau explained that the study's "basic purpose" was to "determine the rate level and the progressions of rates with distance." Another purpose, Dr. Stevens added, was to determine costs.

R. B. A. Sets Program

A brief outline of the stand which the Railway Business Association will take in the future with regard to railroad legislation and regulation, together with a short history of the accomplishments of the association, are set forth in a 10-page booklet by the group's new president, P. Harvey Middleton, which has been issued under the title "The Railway Business Association—Its Scope and Present Program.

Pointing out that R. B. A. was organized on September 30, 1908 as a medium by which the railroad supply industry might give the railroads the backing they needed in that period of "trust-busting", the booklet goes on to state that the association, while it has helped promote such goals as continued private ownership and repeal of land grant rates, its chief aim has been to advocate policies which will enable the carriers to earn an adequate income. This goal will continue to be R. B. A.'s foremost job, especially in view of the proven need for the railroad as the major carrier in wartime. "Regardless of how much other forms of transport may be expanded, they cannot in our day become more than auxiliary services." Therefore, says the booklet, it is good sense to grant the roads earning power which will enable them to "continue in full force their modernization and improvement program, and thus be ready to serve the nation adequately and efficiently in the next national emergency."

The main objectives of the current program of R. B. A. as set forth in the booklet are as follows:

"(1) *Equality of Opportunity:* The R.B.A. recommends that there should be competitive equality between the various forms of 'for hire' interstate carriers, when approved by the Interstate Commerce Commission. At the present time many of the major railroads are conducting operations on the highways either through subsidiary companies or outside contractors. These operations are now limited by law to those operations which are auxiliary and supplemental to rail service.

"(2) *Coordination:* The R.B.A. recommends that all 'for hire' interstate carriers should be permitted by law to operate other forms of transport within reasonable territorial limits, provided always that the regulating agency determines that such operation will be consistent with the public interest and public policy.

"The R.B.A. further recommends that such carriers should be encouraged to coordinate their services through contractual arrangements, and that any legal provisions or interpretations which restrict such voluntary cooperation should be eliminated.

"(3) *Subsidized Transportation:* The R.B.A. recommends that all 'for hire' interstate carriers should have equal opportunities in the use of transport facilities provided by public funds, subject to the approval of the regulatory authority.

"In connection with public expenditures for additional surface and air transport proposals, the R.B.A. recommends that an examination of the underlying facts should be made by impartial investigators to determine whether such projects are essential in the public interest and whether true economy and efficiency in transport will result therefrom.

"(4) *Consolidations:* The R.B.A. recommends that the present policy of making consolidations voluntary and permissive rather than mandatory should be continued and applied not only to consolidations of railroads, but also to consolidations of and coordination between carriers of different types.

"(5) *Regulation:* The R.B.A. recommends that all 'for hire' interstate carriers be placed under regulation by a single government agency. Assuming that coordination of transportation is necessary, and that it will be effected under the supervision, guidance, and encouragement of regulatory authority, it would seem desirable that it should take place under a unified authority whose jurisdiction is co-extensive with the agencies whose services are to be coordinated."

1947 Dividend Changes—Correction

The list of dividend changes during 1947 which appeared on page 222 of the January 3 Statistical Issue of *Railway Age* was in error in stating that the Texas & Pacific reduced its dividend on its common stock from $4 in 1946 to $3 in 1947. The road paid $4 in 1947, the same as was paid in 1946. There was no reduction in the dividend payment in one year compared with the other.

Increased Car Production Seen Limited by Other Needs for Steel

Studies are being conducted by the government and an advisory committee representing numerous steel companies in order to determine whether the freight car program can be expanded beyond the production of 10,000 new cars monthly without causing "undue damage" to three other industries—housing, farm machinery, and petroleum equipment—which also require steel, Secretary of Commerce W. A. Harriman told a January 30 press conference.

Discussing the freight car situation with respect to the so-called voluntary allocation program, Mr. Harriman declared that there is "no question" that the country needs more freight cars. At the same time, however, he said consideration also should be given as to how much steel is needed in "other areas of priority" and what effect it will have on the total use of steel.

Asserting that "we are trying to break the bottlenecks" in those areas of "prime national importance" and in which there is a "general national interest," Mr. Harriman said it could not be determined at present as to how much steel will be required to satisfactorily meet the demands of the four industries. In order to carry out the 10,000 car program, he said, the freight car manufacturers will need 1,000,000 tons of steel more than they received in 1947.

Mr. Harriman said that the allocation program does not contemplate the Department of Commerce assuming the role as expediter for the steel requirements of individual firms. "'What is contemplated by the program," he added, "is obtaining voluntary agreements from the steel industries and the consuming industries to expand production in areas in which there is great importance. I want to emphasize the fact that the overall . . . direction of steel to those areas will be a relatively small proportion of the total steel production."

Listing the freight car program as the "first objective" under the allocation set-up, Mr. Harriman observed that the present schedule calls for production of 10,000 new cars per month and a fulfillment of the railroads' needs for repair purposes. Asked whether there is any anticipation that the freight car program would be increased to 14,000 cars monthly, he replied briefly that "we are studying" with the railroads, Colonel J. Monroe Johnson, director of the Office of Defense Transportation, and the steel industry "whether this program can be and should be stepped up."

Mr. Harriman described as a "first priority" the acquisition of additional raw materials, notably scrap, which are necessary to keep steel production as close to capacity as is "humanly possible." In this connection, he noted that the principal scrap-producing industries, including the railroads, have responded to appeals by undertaking programs to make available without delay as much scrap as possible.

Mr. Harriman also referred to his discussions earlier the same day with members of the Association of American Railroads board of directors, who were holding their regular monthly meeting in Washington. The railroads, he said, have agreed to cooperate in conserving steel in their maintenance and construction projects and in conjunction with the return of scrap.

Colonel Johnson, meanwhile, predicted this week that the shortage of box cars will continue "indefinitely." The O. D. T. director said that the railroads will have about as many cars as they had in 1946 even if 10,000 new cars are turned out monthly through October. At the same time, he added that he did not expect the January output to reach 9,000 cars.

Emergency Board Submits Report on Short Lines' Wage Dispute

Complying with the specific provisions set out in President Truman's order of December 31, 1947, the emer-

gency board which he created to investigate disputes between 17 unions representing certain non-operating employees and 18 short lines which have not made the wage adjustments in line with the 15½ cents per hour increase awarded as of September 1, 1947, to non-ops on the railroads generally, has given "independent consideration" to each road and has reported to the White House "separate and independent findings" with respect to each of the carriers involved.

Of the 18 roads, the board recommended that the following 10 conform to the national wage pattern of 15½ cents per hour increase from September 1, 1947: the Alabama, Tennessee & Northern; Atlantic & East Carolina; Belfast & Moosehead Lake; Chicago North Shore & Milwaukee; Chicago, Aurora & Elgin; Colorado & Wyoming; Columbus & Greenville; East Tennessee & Western North Carolina; Midland Terminal; Port Utilities Commission of Charleston, S. C.; and the Wichita Falls & Southern.

With respect to the Fonda, Johnstown & Gloversville, the board recommended an increase of 10 cents per hour, effective November 1, 1947, while increases of 15½ cents per hour to skilled employees, 12½ cents per hour to semi-skilled employees and 7 cents per hour to unskilled employees, retroactive to September 1, 1947, were recommended for those employees of the Georgia & Florida involved in the dispute. As to the Louisiana & North West, the board recommended that the employees accept a special basis for settlement offered by the carrier.

The board also recommended that the trustee of the Meridian & Bigbee River submit the controversy to the court for consideration with a view of granting the 15½ cents per hour increase demanded by the employees, while the same increase, effective January 1, was recommended for the Tennessee. With respect to the Mississippi Central, the board recommended that the carrier negotiate an agreement with the bargaining agent of the employees affected for the increased 15½ cents per hour, retroactive to last September 1. The M. C. advised the board, according to the report, that it had already unilaterally applied the increase, but not retroactive to that date. The board's report also noted that the dispute involving the Macon, Dublin & Savannah, one of the 18 roads listed in President Truman's order, was settled by direct negotiations of the parties during the course of the hearings.

Observing that 329 of 346 railroads with which the non-op employees organizations have agreements have adhered to the 15½ cents per hour increase awarded by the arbitration board last September, the emergency board commented that "it seems obvious . . . that, by reason of the award and the adherence to the national pattern by this overwhelming majority, cogent reasons must be given for not following the national pattern." "But," it continued, "however meritorious a national pattern may be or how universally it may be accepted, such pattern may not be made to operate as a substitute for collective bargaining between individual carriers and their employees as contemplated by the Railway Labor Act, as amended."

The board was composed of Grady Lewis, of Washington, D. C., chairman; Dr. H. B. Fouke, Methodist minister of Painesville, Ohio, and Andrew Jackson, of New York.

New Traffic Sources Along N. Y. C. Set Peacetime Record

New industries which located along the New York Central System in 1947 will produce more new freight traffic for the road than gained from new industries in any other peacetime year, according to an estimate by Gustav Metzman, president. Last year, he said, 460 new industries located along the N. Y. C. and conservative estimates indicate they will produce approximately 221,670 carloads of new freight annually. The new plants, scattered throughout the area served by the road, produce a wide variety of products ranging from bearings to cement and from office furniture to milking machinery.

Criticisms of Our RRs Similar To Those of Britain's Carriers

The first steps toward socialization of railroads in the United States have been projected with some parts of the pattern identical with those used in the nationalization of transportation in Great Britain, Daniel P. Loomis, executive director of the Association of Western Railways, told members of the St. Paul (Minn.) Rotary Club on January 13. Many criticisms made of the British railroads, Mr. Loomis asserted, "are identical with those heard in this country from exponents of government ownership or similar crackpot schemes." Some of them are similar to those made by supporters of the attacks on the American railroads being made by our own Department of Justice, he added.

Declaring that the "great need of the railroad industry today is that of public understanding of the industry and its problems," Mr. Loomis talked at length on the railroads' need for a fair rate of return on the net investment on their properties. "What we must realize is that the railroad industry does not operate in an economic vacuum," he asserted. "It must have profits just as any other business to enable it to continue to improve its plant and service and operate efficiently." The speaker pointed out that the railroad industry "probably requires more stand-by plant and equipment to meet seasonal peaks of traffic than any other industry and it must continue to operate and to support its stand-by plant even when business is slack."

Painting Truck Sides and Parts

In an A. A. R. circular letter dated January 9, Par. (t) (3-e) of interchange inspection Rule 3 is modified, effective January 1, to read as follows:

Reprinted from the Washington Evening Star

"(t) (3-e) New or secondhand truck sides, truck bolsters and car wheels must not be painted, except the inside of journal boxes may be painted with a primer coat if desired."

Exception was made as to side frames and bolsters now on hand at construction plants which were painted (after inspection) by the manufacturers before shipment. These may be applied to cars outshopped after January 1, 1948, without removing the paint, but no more side frames or bolsters may be painted.

F. R. P. First Anniversary Dinner in New York on Feb. 24

The Federation for Railway Progress will observe its first anniversary with a dinner at the Waldorf-Astoria Hotel in New York on February 24. Robert R. Young, federation chairman, will make a report on the organization's first year of activity. Awards, the recipients of which will have been chosen by two separate federation committees, will be made to the railroad judged to have provided the best passenger service in 1947 and to the newspaperman whose writings during the year were selected as contributing the most to railway progress.

I.C.C. Hears Plea for Higher Coach Fares on Western Roads

A one-day Interstate Commerce Commission hearing on the petition of 85 western railroads for authority to increase, on five days' notice to the public, their one-way and round-trip coach fares, was held at Chicago on January 27 before Commissioner John L. Rogers and Examiner Burton Fuller. Nine carrier representatives testified that increased operating costs and a decline in passenger business made it necessary that the coach fares of the Western roads be increased to the same level as those now in effect in the East and on a majority of the Southern roads. There were no protestants to the proposed increases.

In the proceeding, docketed as No. 29897, the carriers have requested that the one-way coach fare be increased by 13.63 per cent to approximately 2.5 cents per mile and that round-trip fares be raised from 1.98 cents per mile to 2.25 cents. Authority is also sought by the petitioners to increase to 15 cents the minimum one-way fare on all classes of travel and to raise to approximately 1.8316 cents per mile round-trip transcontinental coach fares.

Appearing as general witness for all of the petitioning carriers, H. W. Siddall, chairman of the Trans-Continental and Western Passenger Associations, declared that, with increased costs of operation, "it is necessary that an experiment be made with increased coach fares." He said the proposed increases would not divert any "material" amount of traffic from the railroads, but would result in "considerably" greater revenue to the petitioners. Based on estimated 1947 revenue, Mr. Siddall told the commission that granting of all of the proposed increases would raise the railroads' revenues by approximately $21,209,135 on a yearly basis, with the different types of increases contributing as follows: one-way, $11,950,990; round-trip, $8,034,257; and round trip transcontinental $1,223,888.

In addition to Mr. Siddall, the following appeared as carrier witnesses: E. E. Nelson, passenger traffic manager of the Northern Pacific at St. Paul, Minn.; C. E. Quackenbush, assistant general passenger agent of the Chicago & North Western at Chicago; George Gilman, assistant general passenger traffic manager of the Atchison, Topeka & Santa Fe at Chicago; J. H. M. Clinch, vice-president, secretary and treasurer of the Chicago, North Shore & Milwaukee at Chicago; A. C. Linton, passenger traffic manager of the Illinois Central at Chicago; J. B. Reynolds, general passenger agent of the Missouri Pacific at St. Louis, Mo.; Joseph M. Vonau, Jr., general passenger agent in charge of rates and divisions of the Southern Pacific at San Francisco, Cal., and L. L. Huntoon, passenger traffic manager and public relations officer of the Chicago, Aurora & Elgin at Aurora, Ill.

Representation of Employees

The Pennsylvania Railroad Police Officers Benevolent Association, Inc., has retained its right to represent patrolmen, including lieutenants and sergeants, employed by the Pennsylvania, as the result of a recent election which has been certified by the National Mediation Board. The association defeated the National Council, Railway Patrolmen's Unions, American Federation of Labor, 400 to 115.

The N. M. B. also has certified the Brotherhood of Maintenance of Way Employees to represent the craft or class of maintenance of way employees of the Alabama State Docks and Terminal, and the United Transport Service Employees, Congress of Industrial Organizations, to represent Central of Georgia dining car employees (tavern lounge car attendants). These employees formerly were without representation.

Additional General News begins on page 85.

CAR SERVICE

I. C. C. Service Order No. 87, which relates to the free time allowed on tidewater coal and coal products at North Atlantic ports, has been modified by Amendment No. 11, which provides that the settlement period starting December 1, 1947, shall expire March 1 rather than February 1 as would otherwise be required by the order.

I. C. C. Service Order No. 394 (revised), which restricts the free time on refrigerator cars held at or short of ports has been modified by Amendment No. 1 which set back the expiration date from February 5 until August 31.

I. C. C. Service Order No. 775, which maintains super - demurrage charges on all types of freight cars, has been modified by Amendment No. 7, which extends the period of exemption for cars affected by the strike of truckers in the Boston, Mass., area. Relief from the order's provisions is now accorded with respect to cars on hand at 7 a.m. February 1 or arriving prior to 7 a.m. February 16, the unloading of which is interfered with due to the strike.

ORGANIZATIONS

The **New York Railroad Club** will meet on February 19 at 8 p.m., in the auditorium of the Engineering Societies Building, New York. Edward H. Anson, vice-president, Gibbs & Hill, Inc., will present a paper entitled "Suspended Monorail for Rapid Transit."

The **Third Southern Machinery and Metals Exposition** will be held at the Municipal Auditorium, Atlanta, Ga., April 5-8, inclusive.

EQUIPMENT AND SUPPLIES

N. C. & St. L. Buys 21 Diesels; Spends $1,420,000 on Rails

The board of directors of the Nashville, Chattanooga & St. Louis, meeting at Nashville, Tenn., on January 27, authorized the purchase of 21 1,500-hp. Diesel-electric road units from the Electro-Motive Division of General Motors Corporation, at a cost of $3,287,000. The locomotives—the first Diesel road units to be purchased by the railroad—will be delivered during 1948 for service between Bruceton, Tenn., and Atlanta, Ga., and can be interchanged in passenger and fast freight service.

The road's 1948 budget includes a $1,420,000 rail renewal program, which calls for the replacing of 110-lb. and 90-lb. rail with 132-lb. rail. The board also approved an expenditure of $328,000 for three lightweight streamlined cars, which is the road's proportion of equipment for a new streamlined train between Chicago and Florida to be operated on the "Dixie Route."

Locomotives

Date	Purchaser	No.	Type	Builder
Jan. 3	S. P.	20*	6,000-hp. D.E. frt.	Electro-Motive
		10*	1,000-hp. D.E. sw.	Baldwin
		10*	1,000-hp. D.E. sw.	American
Jan. 17	M-K-T	16	1,500-hp. D.E. frt. A units	Electro-Motive
		4	1,500-hp. D.E. frt. B units	Electro-Motive
		16	1,500-hp. D.E. frt. A units	American
		8	1,500-hp. D.E. frt. A units	Baldwin

Freight Cars

Date	Purchaser	No.	Type	Builder
Jan. 24	I. C.	1,000	50-ton coal hopper	Pullman-Standard
31	Clinchfield	1,000	50-ton hopper	Amer. Car & Fdy.
31	D. & R. G. W.	250	70-ton hopper	Pullman-Standard

* This equipment was purchased in December and was so reported in the *Railway Age* of January 3, page 212.

Domestic Equipment Orders Reported in January

Domestic orders for 84 Diesel-electric locomotives, and 2,250 freight cars, were reported in the *Railway Age* in January. No passenger car orders were reported. The estimated cost of the locomotives is $20,600,000 and the freight cars will cost an estimated $8,775,000. The accompanying table above lists the orders in detail.

LOCOMOTIVES

Timken Bearings Ordered For Argentine Road Diesels

The railway division of the Timken Roller Bearing Company has announced the receipt of an order from the Whitcomb Locomotive Company for 5,040 railroad bearings for 210 900-hp. Diesel-electric road locomotives being built by the latter firm for the Argentine State Railways. The ordering of the locomotives was reported on page 214 of the *Railway Age* of January 3, although the purchaser has since requested that 900-hp. engines be substituted for the 675-hp. engines originally ordered.

Canadian Pacific Equipment Order Exceeds $31,000,000

The Canadian Pacific has authorized the purchase of 2,100 freight and work cars, 115 passenger cars and 44 Diesel-electric locomotives at a total cost exceeding $31,000,000, according to an announcement by W. M. Neal, president and chairman. Of the equipment authorized, orders for all but 4 all-roomette sleeping and 6 dining cars have been placed. The National Steel Car Corporation will build 1,000 50-ton box, 200 ballast and 100 70-ton covered hopper cars, the Eastern Car & Foundry Co. will construct 350 70-ton gondola and 350 70-ton triple hopper cars, and 100 40-ton steel cabooses will be built in the road's Angus shops. Twenty 1,000-hp. switching locomotives have been ordered from the Montreal Locomotive Works and 14 1,000-hp. switching, 5 passenger and 5 freight locomotives from the Canadian Locomotive Company. Orders also have been placed with National Steel Car for 25 frames and trucks for first class coaches and 5 frames and trucks for double bedroom-roomette sleeping cars and with Canadian Car & Foundry for 10 mail-express and 15 baggage-express cars and 50 frames and trucks for first class coaches. All frames and trucks are being purchased for cars ordered built in the road's own shops.

The **Erie** has placed orders for 17 Diesel-electric locomotives at an approximate cost of $3,700,000. Included in the order are four 6,000-hp. freight locomotives (two of which will be built by the American Locomotive Company and two by the Electro-Motive Division of the General Motors Corporation), and 13 switching locomotives (four of which will be built by the Baldwin Locomotive Works, four by Alco and five by Electro-Motive). Delivery of this equipment is expected early next year. Two of the freight locomotives will be used between Jersey City, N. J., and Buffalo, N. Y., and two will be placed in service between Hornell, N. Y., and Marion, Ohio. Seven of the switching locomotives will be assigned to the Croxton, N. J., yard, three to Jersey City, one to Weehawken, N. J., and two to the Buffalo area.

The board of directors of the **St. Louis-San Francisco** has authorized the purchase of four 4,500-hp. Diesel-electric freight locomotives.

FREIGHT CARS

The **Illinois Central** has ordered 1,000 all-steel, 50-ton hopper cars from the General American Transportation Corporation, to be delivered in the latter part of 1948.

The **New York Central System** has ordered 2,000 55-ton box cars, 2,000 55-ton self-clearing hopper cars and 1,000 70-ton gondola cars from Despatch Shops, Inc., at a total estimated cost of $22,000,000. Half of each group of cars is intended for the New York Central and half for the Pittsburgh & Lake Erie. Deliveries of the hopper cars will be made from August through December of this year, the box cars are scheduled for delivery between December, 1948, and March, 1949, and the gondola cars will be delivered in the period of March-May, 1949. The inquiry for this equipment was reported in the *Railway Age* of January 24.

The **Chicago and Northwestern** is inquiring for 1000 50-ton 40½-ft. box cars, 650 70-ton triple-hopper cars, 650 41½-ft. high-side fixed-end gondola cars and 50 70-ton 65½-ft. mill-type drop-end gondola cars.

SIGNALING

The **American Locomotive Company** has ordered 11 sets of intermittent inductive train control equipment from the General Railway Signal Company. This equipment will be used on Diesel-electric locomotives being built for freight switching service on the New York Central.

The **Gulf, Colorado & Santa Fe** has ordered materials from the Union Switch & Signal Co. for the installation of automatic block signaling on 40 mi. of single-track between Sweetwater, Tex., and Buffalo Gap, involving 59 Style H-5 searchlight signals, relays, switch boxes and housings. The construction work will be done by railway forces.

IRON and STEEL

The **Norfolk & Western** has ordered 18,750 tons of steel rails from the Carnegie-Illinois Steel Corporation and 6,250 tons from the Bethlehem Steel Company.

SUPPLY TRADE

Lower Net Income Reported For Canadian Car & Foundry

Net profit of the Canadian Car & Foundry Co. for the fiscal year ended on September 30, 1947, amounted to $712,682, compared with $1,215,538 in the preceding fiscal year, according to the firm's recently released annual report. The decline in net income was caused mainly by the virtual cessation of activity in the car shops for a protracted period during the fiscal year, brought about by shortages of certain essential materials, V. M. Drury, president, said. Since then, he added, the situation has substantially improved but will nonetheless continue for some time to act as a deterrent to a full realization of gross business now on the company's books.

L. D. Gable, formerly factory manager of the Columbus, Ohio, plant of the **Timken Roller Bearing Company**, has been appointed general manager, to succeed **William A. Fowler**, retired.

John R. Gaut, formerly general superintendent of the Waukegan, Ill., plant

of the **American Steel & Wire Co.**, a subsidiary of the United States Steel Corporation, has been appointed assistant manager of Chicago district operations, and **Nelson W. Dempsey**, formerly division superintendent, has been appointed general superintendent to succeed Mr. Gaut. The appointment of **Vernon L. Strohm**, formerly superintendent of the dry drawing department, as division superintendent to succeed Mr. Dempsey, also was announced.

Howard L. Phillips, formerly with the Worthington Pump & Machinery Corp., has been appointed assistant export manager of the **Nordberg Manufacturing Company**, Milwaukee, Wis. After graduation from the Lewis Institute of Technology as a mechanical engineer, Mr. Phillips joined Worthington Pump in 1934 and served eight years as Far Eastern representative of the company with headquarters in Manila, P. I. During the recent war he was interned by the Japanese and after hostilities ceased he returned to Worthington Pump at Harrison, N. J., where he worked in the export department.

Howard L. Phillips

E. B. Maire, formerly regional sales manager for the **General Controls Company**, has been appointed sales manager for its Boston, Mass., Philadelphia, Pa., Pittsburgh, Birmingham, Ala., New York, Detroit, Mich., Cleveland, Ohio, and Chicago branch offices.

William F. Victor, vice-president of the **Victor Mfg. & Gasket Co.**, has been appointed manager of the company's new stock and merchandising center at 3636 Iron street, Chicago.

The **Dampney Company of America**, Hyde Park, Boston 36, Mass., has announced the appointment of the **Paxton Company**, Norfolk, Va., as its distributors in Virginia.

The **Wheelco Instruments Company**, Chicago, has announced the appointments of **J. P. Cantor**, formerly of the New York office, as district manager of the new Cleveland, Ohio, district office at 4501 Prospect avenue, and **Herbert Proske**, formerly a sales representative, as assistant district manager of the New York office. **Clarke H. Joy**, who formerly directed Wheelco sales in the Cleveland area, has formed the Clarke H. Joy Company. Wheelco Instruments also has announced the removal of its Washington, D. C., office to new quarters at 2285 Rhode Island avenue.

The **Link-Belt Company** has announced the removal of its Pittsburgh, Pa., district sales office to 5020 Centre avenue, with **Otto W. Werner**, district sales manager, in charge.

C. R. Lewis, vice-president and a director of the **Standard Forgings Corporation** at Chicago, will retire on February 15, after 30 years of service with the company. Mr. Lewis' railroad experience included 22 years in the freight traffic department of the Cleveland, Cincinnati, Chicago & St. Louis.

Frank J. Foley, whose retirement as a consultant also was announced in *Railway Age* of January 17, began his railroad career in 1893 as a messenger boy for the Baltimore & Ohio at Newark, Ohio. He subsequently worked as telegraph operator and train dispatcher on several mid-western railroads and, in 1897, entered the manufacturing department of the Pullman Company. In 1902 he joined the Railway Steel Spring Company, and was in charge of various plants until 1912, when he was appointed general superintendent of the company. He became vice-president in charge of sales in 1919 and, in 1927, a vice-president of American Locomotive, which earlier had absorbed the Railway Steel Spring Company, now Alco's Railway Steel Spring division. Mr. Foley also was a director of the company.

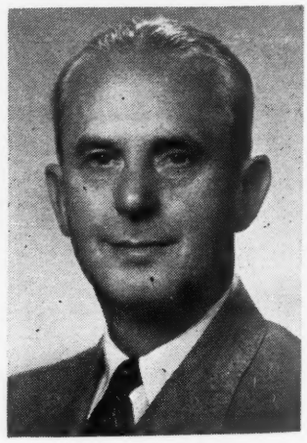
Frank J. Foley

J. J. Valentine has been appointed assistant general sales manager of the **Caterpillar Tractor Company** at Peoria, Ill., succeeding **W. K. Cox**, whose appointment as advertising manager was reported in the *Railway Age* of January 31. Mr. Valentine is succeeded as Central division sales manager by **Ferd D. Haberkorn**, Sales Training division manager, who in turn is succeeded by **J. W. Mohler**, assistant sales manager of the Central division. Mr. Mohler is replaced by **Herman S. Eberling**, Western division district representative.

John A. Schwer, superintendent of production planning at **Carnegie-Illinois'** Gary Sheet & Tin Mill at Gary, Ind., has been appointed assistant to general superintendent. Mr. Schwer is succeeded by **Joseph M. Greer**, formerly assistant to general manager of production planning of Carnegie-Illinois at Pittsburgh, Pa.

Theodore I. Leston, formerly director of production of the **Eutectic Welding Alloys Corporation**, has been appointed vice-president in charge of production, with headquarters at the new plant, 110 Duane street, New York.

John J. Davis, Jr. was appointed manager of sales, Railroad division, of the **Inland Steel Company**, with headquarters at Chicago, on January 1, succeeding **William J. Hammond**, who retired on that date. Mr. Davis was born on August 3, 1894, at White Pigeon, Mich., and received his higher education at Purdue University and the Armour Institute of Technology. He began his railroad career with the Elgin, Joliet & Eastern in 1913, serving successively as rodman, instrument man, assistant engineer and supervisor of track. He joined the Illinois Steel Company at Chicago in 1935 as sales engineer in the company's Railroad Materials and Commercial Forgings division, and in the latter part of the year he went with the Carnegie-Illinois Steel Corporation in the same capacity. He subsequently advanced through positions as assistant manager of sales, acting manager of sales and manager of sales of Carnegie-Illinois' Railroad Materials and Commercial Forgings Division. Mr. Davis resigned his post with Carnegie-Illinois to join Inland Steel on June 20, 1947, at which time it was announced that he would succeed to the position of manager of sales, Railroad division, on January 1, 1948.



John J. Davis, Jr.

James M. White, vice-president in charge of manufacturing of the **Allis-Chalmers Manufacturing Company**, has resigned, but will remain in an advisory capacity to Walter Geist, president, for the next six months. Manufacturing operations will continue under the direction of **Fred S. Mackey**, general works manager in charge of all general machinery plants and **Hugo W. Liebert**, general works manager in charge of all tractor plants.

The **Air Reduction Company** has announced the election of **Charles S. Munson**, formerly president, as chairman of the executive committee. The elections of

Charles S. Munson

John A. Hill, formerly a vice-president, as president to succeed Mr. Munson, and **William C. Keeley**, also a former vice-president, as chairman of the newly created finance committee, also were

John A. Hill

announced. Mr. Munson began his career with Air Reduction in 1919 and has been president since 1937. Mr. Hill joined the company in 1939, became secretary in 1941 and a vice-president in 1945.

Orval W. Rahn, associated with **Luminator, Inc.**, since 1939, has been appointed associate design engineer, it has been announced.

The **Standard Stoker Company** has announced the removal of its offices at 350 Madison avenue to 370 Lexington avenue, New York 17.

Peter G. Holliday, formerly vice-president of the Standard Cap & Seal Corp., Chicago, has been appointed works manager of the **Pyle-National Company**, also of Chicago.

The midwest division of **Kelite Products, Inc.**, has announced the opening of new sales offices in Columbus, Ohio, with **J. F. Riley** as manager, and in Cincinnati, Ohio, with **J. T. Nolan** as manager.

OBITUARY

William L. Beaudway, president of the Chicago Malleable Castings Company at Chicago, died at his home in that city on January 28.

FINANCIAL

Central of Georgia.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has approved $174,250 as the maximum limits of allowance for actual and reasonable expenses, exclusive of attorney's fees and expenses, to be incurred by this road's reorganization managers in executing a plan of reorganization. The sum approved includes $62,706 for fees, taxes and charges payable to governmental authorities; $31,589 for charges and expenses of new mortgage trustees and other agencies; $30,835 for printing, mimeographing and photostating expenses; and $16,450 for allowances for error and expense not foreseen.

Central of New Jersey. — *Control of Dover & Rockaway.*—Division 4 of the Interstate Commerce Commission has authorized this road's trustee, W. P. Gardner, to acquire further control of the Dover & Rockaway by approving a February, 1943, purchase by the Jersey Transportation Corporation, a wholly owned subsidiary of the debtor, of 63 shares of D. & R. stock.

The report said it had been the understanding of the applicant that commission approval of the acquisition of the 63 shares was unnecessary because of the fact that 50 per cent of the D. & R.'s capital stock had been acquired, and control had been exercised, before enactment of the Transportation Act of 1920. As to that, the commission said that its jurisdiction over the acquisition by one carrier of "further control" of another had been established in several previous cases. It went on to act on the application, approving it subject to the usual employee-protection conditions.

Chicago & Western Indiana.—*Operating Agreement.*—Approval by the Interstate Commerce Commission of a 1947 agreement relating to a revised basis of distribution and payment of various expenses and obligations of this road, is sought in an application which has been filed by the C. & W. I. and its proprietors, the Chicago & Eastern Illinois, Erie, Grand Trunk Western, Wabash and Chicago, Indianapolis & Louisville. Each of these roads owns one-fifth of the stock of the C. & W. I. Among other stipulations, the proposed agreement provides that the principal function of C. & W. I., which owns extensive terminal properties in Chicago, will be to furnish terminal facilities and services at cost to the five aforementioned roads. The C. & W. I.'s terminal facilities also are used by the Atchison, Topeka & Santa Fe, Belt Railway of Chicago and the Elgin, Joliet & Eastern.

Chicago, Burlington & Quincy.—*Trackage Rights.*—Division 4 of the Interstate Commerce Commission has approved modification of an agreement under which this road operates over approximately 4.5 miles of the Illinois Terminal between Alton, Ill., and North Wood River. The modified agreement provides for an extension of the original agreement for a 25-year-period from May 22, 1947, and a reduction of the annual rental paid by the Burlington. The latter, which has been 2 per cent of the value of the line, will become a proportion of 4 per cent on the value based on the number of users.

Erie & Kalamazoo.—*Dividend.*—This road has declared a dividend of $1.50 a share on the common stock, payable on February 2 to stockholders of record on January 19. The previous payments were $1.75 a share on August 1, and $1.50 a share on February 1, both last year.

Minneapolis & St. Louis.—*New Director.*—S. Bayard Colgate, chairman of the board of the Colgate-Palmolive-Peet Company, has been elected a director of this road to serve the unexpired term of the late Joshua M. Chilton.

Missouri-Kansas-Texas.—*New Director.*—B. C. MacDonald, president of the B. C. MacDonald Company, has been elected a member of this road's board of directors.

Missouri-Kansas-Texas. — *Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for $1,620,000 of equipment trust certificates, the proceeds of which will be applied toward the purchase of 300 50-ton box cars, at an estimated unit cost of 4,202, and 200 70-ton all-steel open-top hopper cars, at an estimated unit cost of $3,833, from the American Car & Foundry Co. The certificates, to be sold on the basis of competitive bidding, would be dated March 1 and would mature in 30 semi-annual installments of $54,000, starting September 1.

Southern. — *Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for

authority to assume liability for $10,680,000 of Series NN equipment trust certificates, the proceeds of which will be applied toward the purchase of 3,000 steel-sheathed 50-ton box cars, at an estimated unit cost of $3,675, from the Pullman-Standard Car Manufacturing Co., and 1,000 all-steel 50-ton hopper cars, at an estimated unit cost of $3,215, from the American Car & Foundry Co. The certificates, to be sold on the basis of competitive bidding, would be dated March 15 and mature in 20 semi-annual installments of $534,000, starting September 15

St. Louis-San Francisco. — *Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has authorized this road to assume liability for $8,280,000 of series A equipment trust certificates, the proceeds of which will be applied toward acquisition of certain equipment estimated to cost $11,051,550, as outlined in *Railway Age* of January 17, page 62. The certificates will be dated January 15 and will mature in 15 annual installments of $552,000, starting January 15, 1949. The report also approves a selling price of 99.385 with a 2¾ per cent interest rate, the bid of Halsey, Stuart & Co., and associates, which had been accepted subject to commission approval and on which basis the average annual cost will be approximately 2.82 per cent.

According to the commission's report, the applicant also sought bids on $8,840,000 of series A certificates maturing in 10 annual installments of $884,000. After careful consideration, however, it decided to establish a 15-year trust, believing it to be prudent to make a 25 per cent down payment on the equipment while its cash position is strong, and to decrease the amount of the deferred annual payments by extending them for a longer period. "While the 15-year certificates . . . will result in a slightly higher effective rate," the commission said, "the applicant believes it is sound financial policy that payments be extended over a period more closely approaching the life of the equipment."

Wheeling & Lake Erie.—*Redemption of Preferred Stock.*—As a means of facilitating this road's complete unification with the New York, Chicago & St. Louis, through merger or consolidation, Division 4 of the Interstate Commerce Commission has authorized the W. & L. E. to issue not exceeding $6,645,800 of 2½ per cent promissory notes, the proceeds of which will be applied together with other funds toward the redemption of 102,139.58 shares of 5½ per cent cumulative convertible preferred stock. One note, in the amount of $5,000,000, will be payable to the Chase National Bank of New York, and the other, in the amount of $1,645,800, to the Nickel Plate, which would receive a like sum for its 16,458 shares of the stock being redeemed. Because the notes will mature in not more than three years from the date of issue, they are exempt from the commission's competitive bidding requirements.

As reported in *Railway Age* of January 10, page 57, W. & L. E. stock in the hands of the public, other than the Nickel Plate's holdings, will consist upon consummation of the transaction, of 670 shares of 4 per cent prior lien stock and 91,578 shares of common. The Nickel Plate's holdings will amount to 115,423 shares of 4 per cent prior lien and 246,145 shares of common, its proportionate ownership of the W. & L. E.'s stock being increased from about 68 per cent to over 79 per cent.

The commission paved the way for the redemption by modifying certain conditions attached to its previous orders approving Nickel Plate acquisitions of its Wheeling holdings. The conditions stipulated in part that Nickel Plate should not sell, pledge or dispose of any of its Wheeling stock, and that no shares of such stock would be redeemed, retired or reacquired by the W. & L. E., except through donation, unless upon commission approval (see *Railway Age* of July 5, 1947, page 65). The modifying order authorized Nickel Plate to present its 16,458 shares for redemption, and to exercise its control over W. & L. E. to cause the latter to redeem and retire the stock.

Wisconsin Central. — *Reorganization.*—Division 4 of the Interstate Commerce Commission has ordered this road's reorganization proceedings reopened for further hearing for the purpose of reexamining the formula adopted for segregation of earnings among the several mortgage divisions of the debtor, and receiving such other evidence as will assist in reconsideration of the plan heretofore approved. The time and place for the hearing will be designated at a later date.

According to the commission's order, revision of the formula and rehearing, reconsideration and modification of the plan was requested by the protective committee for holders of the debtor's Superior and Duluth division and terminal first mortgage bonds, and other petitioners. The commission said that the formula was prepared by the receiver's staff prior to the institution of the section 77 proceedings, was applied to the debtor's operations for the years 1936, 1937, 1939 and 1941 (known as the test years), and that no adjustments in the formula or its application have been made to determine the effect of the results of operations in later years. It said that the debtor's property, traffic, revenues, expenses and earnings may have undergone a "substantial change" since 1941.

Average Prices Stocks and Bonds

	Feb. 3	Last week	Last year
Average price of 20 representative railway stocks	48.65	48.43	52.06
Average price of 20 representative railway bonds	86.62	86.09	92.75

Dividends Declared

Cleveland & Pittsburgh.—4% special guaranteed, 50¢, quarterly; 7% regular guaranteed, 87½¢, quarterly, both payable March 1 to holders of record February 10.

Delaware & Hudson.—$1.00, quarterly, payable March 20 to holders of record February 27.

Michigan Central. — $25.00, semi-annually, payable January 31 to holders of record January 16.

Nashville, Chattanooga & St. Louis. — resumed, $1.00, payable March 1 to holders of record February 9.

Norfolk & Western.—75¢, quarterly, payable March 10 to holders of record February 11.

Peoria & Bureau Valley. — $2.50, semi-annually, payable February 10 to holders of record January 23.

Reading.—4% non cum. 1st pfd., 50¢, quarterly, payable March 11 to holders of record February 19.

Southern.—common, 75¢, quarterly, payable March 15 to holders of record February 13; 5% non-cum. pfd., $1.25, quarterly, payable March 15 to holders of record February 13; 5% non-cum. pfd., $1.25, quarterly, payable June 15 to holders of record May 14; 5% non-cum. pfd., $1.25, quarterly, payable September 15 to holders of record August 13.

CONSTRUCTION

Baltimore & Ohio.—In order to provide for the complete Dieselization of its freight service between St. Louis, Mo., and Parkersburg, W. Va., during the second half of 1948, this road has begun a $425,000 construction program for Diesel-electric locomotive servicing facilities along the route. The largest of the new installations, costing nearly $223,000, will be at East St. Louis, Ill., and will include storage and handling facilities for 100,000-g. of fuel and lubricating oil, a drop table, repair platforms, a repair shop, a crane for handling engines and generators, and facilities for piping air, water and steam to the locomotives. Nearly $100,000 will be spent at Cincinnati, Ohio, to provide another 100,000-g. fuel oil storage plant, repair platforms, a tool room and sanding facilities, a concrete platform and piping. More than $82,000 is being spent at Parkersburg and more than $22,000 at Washington, Ind., to construct similar facilities.

Chicago, Rock Island & Pacific.—This road has awarded contracts totaling $193,670 for the remodeling of an 87-ft. by 197-ft. area in its present locomotive shop at Silvis, Ill., and its conversion into a Diesel locomotive repair shop. The successful contractors are: John Soller Construction Company of Davenport, Iowa, for general building construction; the Johnson Sheet Metal Works of East Moline, Ill., for heating and ventilating; Mechanical Constructors, Inc., of Davenport, for plumbing and service piping; and Knott & Mielly Inc., of Chicago, for electrical work.

Chicago & Eastern Illinois.—This road has awarded a contract to the McCalman Construction Company of Danville, Ill., for the construction of a 258-ft. extension to a 12-ft. by 8-ft. reinforced concrete box at Evansville, Ind., at a cost of approximately $38,500. The box will permit the spreading of waste ma-

terial for grading of the proposed yard at Evansville.

Gulf, Mobile & Ohio.—This road has applied to the Interstate Commerce Commission for authority to construct and operate an 0.5-mile line in Federal, Ill. According to the application, the line would serve an industrial section now served exclusively by the Illinois Terminal.

RAILWAY OFFICERS

EXECUTIVE

William E. Hayes, whose promotion to assistant to president of the Chicago, Rock Island & Pacific, with headquarters at Washington, D. C., was reported in *Railway Age* of January 17, began his railroad career with the Rock Island in 1918 at St. Louis, Mo. He has since worked on various railroads and written a number of magazine

William E. Hayes

articles dealing with railroads. Mr. Hayes' editorial experience includes service with the Associated Press, the Hearst newspapers, the New York Evening Journal, and as editor of Railroad Magazine. During World War II, he was associated with the Office of Defense Transportation and was at one time assistant director in charge of passenger operations. On September 1, 1943, he was appointed executive representative of the Rock Island at Washington, which position he held at the time of his recent appointment.

William C. Jones, whose appointment as assistant to executive vice-president of the Denver & Rio Grande Western, at Denver, Colo., was reported in *Railway Age* of January 17, was born at Fredericksburg, Va., on December 14, 1885, and received his higher education at Fredericksburg College and Virginia Polytechnic Institute. He began his railroad career in 1905 as a chainman on the Richmond, Fredericksburg & Potomac, and joined the Carolina, Clinchfield & Ohio in the following year, serving successively as instrumentman, inspector and draftsman at Johnson City, Tenn. Mr. Jones later served in engineering posts with several concerns and with the Seaboard Air Line, the Winston-Salem Southbound

William C. Jones

and the Chesapeake & Ohio. He became associated with the Denver & Salt Lake in 1927 as assistant engineer at Denver, advancing to chief engineer in 1930. He was out of the railroad industry from May, 1942, until May, 1943, but then joined the Rio Grande as assistant to general manager, the position he held at the time of his recent appointment.

E. W. Soergel, whose election as vice-president in charge of traffic of the Chicago, Milwaukee, St. Paul & Pacific, at Chicago, was reported in the *Railway Age* of January 31, was born in Chicago on July 15, 1886, and entered railway service in 1900 in the traffic department of the Milwaukee at Chicago, and later served in that department at Butte, Mont., and Seattle, Wash. During the period of federal control of the railroads

E. W. Soergel

he served with the Portland District Freight Traffic Committee, with headquarters at Portland, Ore., and later was transferred to the Western Freight Traffic Committee of the U. S. Railroad Administration, with headquarters in Chicago. After federal control, Mr. Soergel returned to the Milwaukee as assistant general freight agent at Chicago, and early in 1926 was promoted to general freight agent at that point. He was advanced to assistant freight traffic manager in 1927 and to freight traffic manager in 1938. Mr. Soergel was serving in the latter post at the time of his recent election as vice-president in charge of traffic.

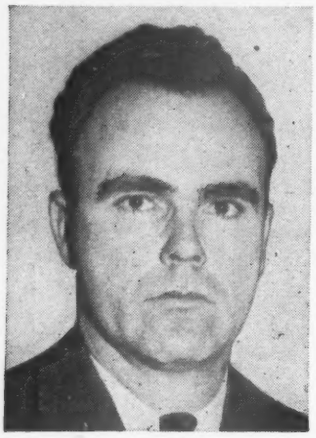
L. B. Pritchett, whose appointment as assistant to president of the reorganized Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 17, was born on July 5, 1900, at Bells, Tex., and received his higher education at Henderson-Brown College in Arkadelphia, Ark., the Southeastern Oklahoma Teachers College in Durant, Okla., and the Metropolitan Business College in Dallas, Tex. Mr. Pritchett entered railroad service in 1920 as a stenographer-clerk in the traffic department of the Chicago & Alton (now part of the Gulf, Mobile

L. B. Pritchett

& Ohio), at Dallas. He subsequently held various clerical positions with the Union Pacific and the Gulf Coast Lines (Missouri Pacific System) at Dallas, advancing to traveling freight agent for the latter in Baton Rouge, La. He later went to Houston, Tex., where he served as assistant chief clerk in the traffic department of the Gulf Coast Lines and as secretary to traffic manager of the M. P. In 1925 he became secretary to executive vice-president of the M. P. at Houston, which position he held until January, 1936, when he was appointed secretary to chief executive officer of the Rock Island at Chicago. He advanced in 1941 to assistant to chief executive officer, which post he held at the time of his recent appointment.

Ernest C. Nickerson, general traffic manager of the New York, New Haven & Hartford, has been appointed vice-president in charge of traffic. Mr. Nickerson was born at Chatham, Mass., on August 4, 1909, and attended Phillips Exeter Academy, Harvard College (B. S. in 1932) and Harvard School of

Business Administration (M. B. A., 1934). In 1933 Mr. Nickerson became a clerk with Eastern Steamship Lines and one year later he went with the Luckenbach Steamship Lines as clerk and traveling freight agent. Mr. Nickerson entered railroad service with the New Haven as traffic representative in 1936 and a year later he became statis-



Ernest C. Nickerson

tical assistant to vice-president of that road. During 1939 and 1940 he was on leave of absence from the New Haven on special duties with the Fruit Growers Express Co. In 1942 he was appointed assistant sales and service agent of the New Haven, becoming assistant manager sales and service later that same year. In 1944 Mr. Nickerson was appointed manager, traffic research and development and in December, 1945, he became assistant general traffic manager. He was promoted to general traffic manager in March, 1947.

J. W. Hill, whose election as vice-president—freight traffic, of the Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of Janu-

J. W. Hill

ary 10, was born at Orient, Iowa, on January 22, 1895, and entered railway service in 1910 as a station clerk on the Rock Island at Moline, Ill. During the next seven years, he served in this position and as telegraph operator and agent at various points. He then enlisted in the signal corps of the U. S. Army and remained in the service until 1919. After his discharge from the army he returned to the Rock Island as agent at the shops at Silvis, Ill. He was transferred to the Eighty-third street freight house at Chicago on October 1, 1919. In April, 1920, Mr. Hill was sent to Detroit, Mich., as traveling freight agent, being advanced to assistant general agent at that point in the following month. In 1923 he was promoted to general agent at Detroit. He was advanced to general freight agent, with headquarters at Chicago, in 1936, and in 1937 he was further advanced to assistant freight traffic manager. In 1939 Mr. Hill joined the Denver & Rio Grande Western at Denver, Colo., as general traffic manager, which position he held until September of the following year, when he became freight traffic officer of the Rock Island. He was serving in the latter capacity at the time of his recent election as vice-president—freight traffic.

S. T. W. Green, whose election as vice-president and general manager of the Lehigh & New England at Bethlehem, Pa., was reported in *Railway Age* of January 3, was born at Baltimore, Md., on January 6, 1894. Mr. Green attended Baltimore Polytechnic Institute and received his C. E. degree from Cornell University in 1916. He entered railroad service in 1911 in the engineering department of the Baltimore & Ohio, and was employed by the engi-

S. T. W. Green

neering department of the Baltimore Sewerage Commission in 1912. Mr. Green attended Cornell University College of Civil Engineering from 1914 to 1916, and then went with the Bureau of Valuation of the Interstate Commerce Commission. From 1917 to January, 1931, he held various positions in the valuation department of the Baltimore & Ohio, except during the war period when he served overseas as lieutenant in the engineer reserves. Mr. Green served as valuation engineer and real estate agent of the Lehigh & New England from January, 1931, to May, 1936, becoming assistant to general superintendent of that road on the latter date. In January, 1939, he became superintendent of the L. & N. E. and in February, 1945, he was appointed general superintendent of that road, which position he held until his recent election as vice-president and general manager.

Carl Nyquist, whose election as vice-president and treasurer of the reorganized Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 10, was born at Chicago on November 17, 1877, and entered Rock Island service in 1898 as a clerk in the treasury department. He was promoted to chief clerk to the secretary in 1899, and from 1910 to 1918 served successively as assistant secre-

Carl Nyquist

tary, assistant secretary and assistant treasurer and federal treasurer. In November, 1918, he was promoted to secretary and treasurer, and in 1921 he became vice-president, secretary and treasurer, which positions he held until his recent election as vice-president and treasurer of the reorganized company.

W. K. Morton and **B. B. Bryant** have been named assistants to vice-president—personnel of the Chesapeake & Ohio at Richmond, Va. Mr. Morton was born at Hagerstown, Md., and attended Christ School, Arden, N. C., and Smithdeal Business College, Richmond. He has been with the C. & O. since November 1, 1910, serving in various secretarial and clerical positions until his appointment as assistant to general manager on February 9, 1942. In the latter position Mr. Morgan organized a system for handling deferments of essential railroad employees during World War II and worked closely with national and state selective service officers, War Manpower Commission and Treasury department representatives on various national defense and war projects. On December 16, 1946, Mr. Morton was named staff representative and was placed in charge of organizing and

putting in operation an Employees' Suggestion System, holding this position until his present appointment.

Mr. Bryant was born at Hinton, W. Va., and attended Pennsylvania College, Gettysburg, Pa., majoring in commerce and finance. He entered the C. & O. service in April, 1914, and served successively as clerk, timekeeper, accountant, material accountant, chief clerk and transportation inspector. In February, 1946, he was named assistant to chief of personnel where he handled grievance items for operating and non-operating employees. A year later he was appointed labor relations advisor, in which capacity he served until his latest promotion.

Henry F. McCarthy, executive assistant to the president of the New York, New Haven & Hartford, at New Haven, Conn., has been appointed resident vice-president at Boston, Mass. Mr. McCarthy was born at Portsmouth, N. H., on May 11, 1906, and received his B.S. from Harvard College in 1927 and his M.S. in Transportation from Yale University in 1930. He entered railroad service in 1927 with the Baltimore & Ohio in the construction division of the engineering department. From 1930 to 1932 he served in various capacities in the traffic department of the St. Louis Southwestern, becoming assistant to vice-president traffic of that road in 1932. One year later he was appointed assistant general traffic manager of the

Henry F. McCarthy

St. L. S. W. and in 1934 he became general passenger agent of the Boston & Maine and the Maine Central. On April 1, 1937, Mr. McCarthy was appointed passenger traffic manager of the B. & M. and Me. C. and from January to May, 1942, he was on leave as associate director, Division of Traffic Movement, Office of Defense Transportation at Washington, D. C. From May, 1942, to June 1, 1944, he was director of the same division, later becoming also director of the Division of Railway Transport. From June 1, to September 1, 1944, Mr. McCarthy was assistant director, O.D.T., in charge of the Railway Department. He was passenger traffic manager of the Boston & Maine from September 1 to November 17, 1944, becoming executive assistant to president of the New Haven on November 17, 1944.

George T. Carmichael, vice-president in charge of accounting, public relations, advertising and industrial development of the New York, New Haven & Hartford at New Haven, Conn., has been appointed also executive assistant.

J. Frank Doolan, assistant to the president of the New York, New Haven & Hartford, has been appointed vice-president in charge of operation, maintenance and engineering, with headquarters at New Haven, Conn., succeeding **Dean F. Willey**, deceased.

OPERATING

P. C. Wingo, trainmaster of the Radford division of the Norfolk & Western, has been appointed assistant superintendent of the Pocahontas division at Bluefield, W. Va., succeeding **W. H. Jackson**, who has been transferred to the newly-created position of assistant superintendent of the Norfolk division at Crewe, Va. **W. R. Jackson**, assistant trainmaster of the Radford division, has been transferred to the Norfolk division at Roanoke, Va., replacing **Ashburne Oliver**, who has been promoted to trainmaster of the Radford division to succeed Mr. Wingo.

A. W. Hervin has been appointed assistant superintendent of the Chicago, Milwaukee, St. Paul & Pacific's coast division, with headquarters at Seattle, Wash., succeeding the late **W. J. McMahan**.

J. Wylie Lumpkin, route agent of the Railway Express Agency at Nashville, Tenn., has been appointed safety director, Southern department, at Atlanta, Ga.

K. E. Miller has been appointed assistant to general superintendent of transportation of the Delaware & Hudson at Albany, N. Y.

A. D. Hanson, whose promotion to general superintendent of transportation of the Union Pacific, with headquarters at Omaha, Neb., was reported in *Railway Age* of December 27, 1947, was born on February 20, 1899, at Elkhorn, Neb. Mr. Hanson began his railroad career with the U. P. in 1917 as a stenographer at North Platte, Neb., later advancing through various clerical and other positions to that of chief clerk to general superintendent at Cheyenne, Wyo. From 1933 to 1939 he was on leave from the road to serve with different agencies of the state of Wyoming, after which he returned to the U. P. as secretary to general manager at Omaha. He next served successively as secretary to vice-president —operation, chief clerk to executive assistant at Los Angeles, Cal., and assistant to general manager at Omaha. On July 1, 1946, Mr. Hanson was ap-

A. D. Hanson

pointed general superintendent of the South Central district, with headquarters at Salt Lake City, Utah, which post he held until his recent appointment.

FINANCIAL, LEGAL and ACCOUNTING

Arthur J. Messersmith, whose election as assistant general auditor of the Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 10, first entered the service of the Rock Island in Chickasha, Okla., as a

Arthur J. Messersmith

clerk in 1906. In subsequent years he served the road in El Reno, Okla., Fort Worth, Tex., and Chicago as district auditor, traveling accountant and chief clerk. He had served since 1928 as auditor of freight claims, the position from which he was promoted to assistant general auditor.

Ward Vanderpool, whose election as secretary and assistant treasurer of the Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 10, entered the service of the Rock Island in 1902 as a clerk in the

car department at Chicago. He was transferred the following year to the road's treasury department as a clerk, and in 1910 was promoted to assistant cashier. In 1918 he was further advanced to assistant secretary and assist-

Ward Vanderpool

ant treasurer, which position he held at the time of his recent promotion.

William F. Gleeson, whose appointment as general counsel of the Lehigh Valley at New York was reported in *Railway Age* of January 10, was born at Brooklyn, N. Y., where he attended the public schools. After completing

William F. Gleeson

his legal studies at New York Law School and Fordham University, he began his career with the Lehigh Valley as a clerk in the claims department in 1908. Mr. Gleeson then served successively as claims adjuster, chief claim agent, and claims attorney before becoming assistant general counsel of the road in January, 1945, which position he held at the time of his recent promotion to general counsel.

Clarence O. Amonette, whose promotion to assistant general counsel of the Southern Pacific, at San Francisco, Cal., was reported in *Railway Age* of January 24, was born on January 18, 1889, in Virginia, and received his law degree from the University of Virginia in 1914. He entered railroad service in the law department of the Southern

Clarence O. Amonette

at Washington, D. C., in 1920, joining the S. P. as valuation attorney in 1925. He was promoted in 1942 to general attorney at San Francisco, which position he held until his recent appointment.

Clarence A. Zehnder, whose promotion to controller of the Denver & Rio Grande Western, at Denver, Colo., was reported in *Railway Age* of January 17, was born at Jackson, Miss., on December 1, 1902, and received his higher education at Mississippi State College. From 1930 to 1946, Mr. Zehnder was an accounting consultant of Ebasco Services, Inc. (service organization of the Electric Bond & Share Co.), with headquarters at New York. On Feb-

Clarence A. Zehnder

ruary 15, 1946, he became assistant controller of the Rio Grande, which position he held until his recent promotion.

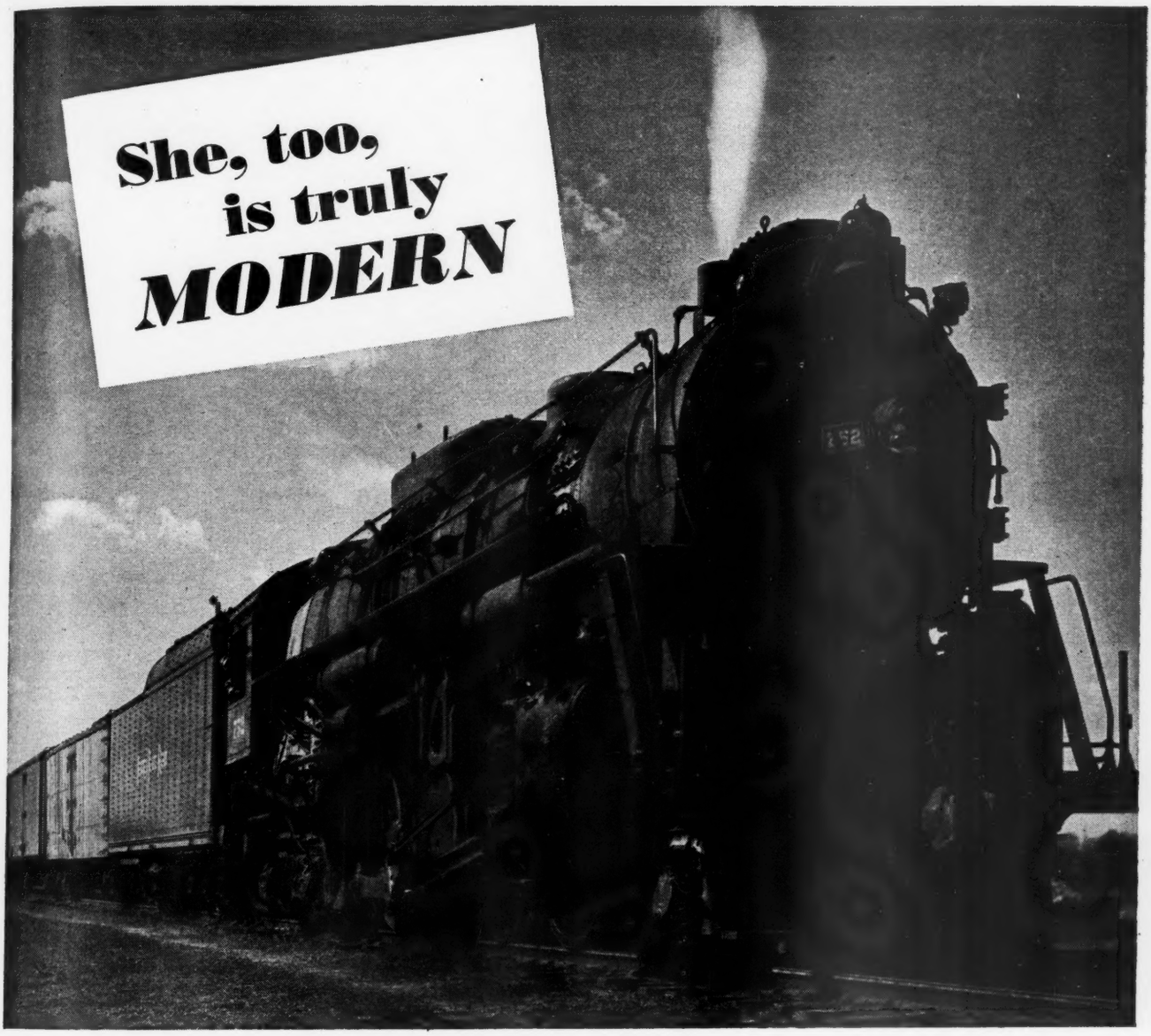
TRAFFIC

Norman W. Pringle, whose retirement as passenger traffic manager of the Lehigh Valley at New York was reported in *Railway Age* of January 10, was born at Huntingdon, Que., Canada, on August 11, 1880. He entered railroad service on November 1, 1901, in the freight house of the Rutland at Rutland, Vt., subsequently serving in the passenger department and as traveling passenger agent of that road. In May, 1909, Mr. Pringle went with the Lehigh Valley as New England agent at New Haven, Conn., and in December, 1914, he was appointed division passenger agent at Buffalo, N. Y., transferring to Ithaca, N. Y., in October, 1916. He became assistant general passenger agent at New York in December, 1917, and was appointed general passenger agent of the L. V., the Susquehanna & New York (abandoned) and the Buffalo Creek at New York in March, 1919. Mr. Pringle became passenger traffic manager of the Lehigh Valley at New York in 1925, which position he held until his retirement because of ill health. He will continue in service with the company in an advisory capacity.

Patrick J. Tierney, whose retirement as assistant general freight traffic manager of the Chesapeake & Ohio at Richmond, Va., was reported in the *Railway Age* of January 10, entered railroad service in 1901 with the Queen & Crescent Route (Southern) at Cincinnati, Ohio. Mr. Tierney went with the Chesapeake & Ohio on March 15, 1905, as overcharge claim investigator in the Kanawha Dispatch office, becoming rate clerk there on August 15, 1908, and chief rate clerk on September 1, 1913. During federal control he was transferred to the tariff bureau at Richmond as rate and tariff clerk. He was appointed assistant to general freight agent on September 1, 1921; assistant general freight agent on October 1, 1925; general freight agent on April 1, 1934; assistant freight traffic manager at Richmond in December, 1938; freight traffic manager at Richmond on January 1, 1941, and assistant general freight traffic manager at Richmond on August 1, 1945, holding the latter position until his retirement.

Joseph F. James, Jr., whose retirement as Eastern freight office manager of the Lehigh Valley at New York, was reported in the *Railway Age* of January 10, was born at Seaford, Del., on October 9, 1882. Mr. James entered railroad service on July 1, 1904, as clerk in the office of the general eastern freight agent of the Baltimore & Ohio at New York, serving in that capacity until June 1, 1907, when he became contracting freight agent of that road at New York. On April 1, 1909, he took a similar position with the Hudson Navigation Co. at New York and on September 1, 1910, he became contracting freight agent of the Lehigh Valley at New York, subsequently transferring to St. Louis, Mo., and Chicago. On December 2, 1917, Mr. James became chief clerk to general freight agent of the L. V. at New York and from March 1, 1920, to March

News Department continued on next left-hand page



She doesn't wear chrome trim, and her paint is black, but she, too, is truly modern. She was built for a job — a modern job — and she does it well.

With planned scheduling she can stay on the road 16 and 18 hours a day, 27 or 28 days a month. With proper servicing — and such servicing facilities save more than they cost — she can be turned around in an hour or two. With her modern design, based on progressive engineering, her maintenance costs are low. And with equal attention, she — the modern steam locomotive — will give you more train-miles, more ton-miles, more passenger-car miles per year for each dollar of investment than any other type of motive power.

There is a place for steam, and in this place the *modern* steam locomotive is doing an outstanding job. We are continuing to build such locomotives.

LIMA
HAMILTON
CORPORATION

DIVISIONS: *Lima, Ohio* — Lima Locomotive Works Division; Lima Shovel and Crane Division. *Hamilton, Ohio* — Hooven, Owens, Rentschler Co.; Niles Tool Works Co.

PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.

1, 1930, he was general agent of that road at Toledo, Ohio, and Cleveland, becoming general Eastern freight agent at New York on the latter date. Mr. James was appointed Eastern freight traffic manager at New York in 1946.

A. D. Martin, whose re-appointment to the position of passenger traffic manager of the reorganized Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 17, was born at Grant City, Mo., on December 11, 1885, and entered the service of the Rock Island in 1908 as a telegrapher. In 1914 he was appointed ticket agent at Iowa City, Iowa, and in 1921, he

A. D. Martin

was advanced to traveling passenger agent at Des Moines, Iowa, being transferred to Buffalo, N. Y., in 1924. Two years later Mr. Martin was promoted to general agent, passenger department, at Detroit, Mich., and in 1928 he was transferred to Omaha, Neb. Mr. Martin was advanced to general passenger agent at Chicago in 1936 and to assistant passenger traffic manager in March, 1939. In July of the latter year he was further promoted to passenger traffic manager, the position to which he was re-appointed for the reorganized Rock Island.

The Canadian Pacific, due to the "steadily-growing importance of the freight business from the rich Mid-West," has set up an American organization for direct supervision of overhead and interchange traffic from U. S. railroads, effective on February 1. In connection therewith, **Harry Stockdale**, general freight agent at Boston, Mass., becomes assistant freight traffic manager, a newly created position, with headquarters at Chicago. Mr. Stockdale will have jurisdiction over all U. S. agencies west of Buffalo, N. Y., and Pittsburgh, Pa., excepting those on the Pacific Coast. Mr. Stockdale is succeeded at Boston by **R. A. Hasenstab**, general freight agent at Detroit, Mich. Other changes are as follows: **T. M. Holland**, district freight agent at Chicago, transferred to Pittsburgh; **T. E. Reuter**, district freight agent at St. Louis, Mo., promoted to general freight agent at Chicago; **G. C. Mensing**, district freight agent at Pittsburgh, promoted to general freight agent at Detroit, Mich.; and **J. C. Webber**, promoted from traveling freight agent at Chicago to district freight agent at that point.

Changes affecting both the C. P. and the Minneapolis, St. Paul & Sault Ste. Marie are as follows: **M. J. Farrell**, resident traveling freight agent at New Orleans, promoted to district freight agent at Memphis, Tenn.; **P. D. Salmon**, transferred from Memphis to St. Louis as district freight agent; and **A. M. Schaeffer**, traveling freight agent at Memphis, promoted to resident traveling freight agent at New Orleans.

Ephraim Rigg, whose promotion to general freight traffic manager of the Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 17, was born at Wilmington, N. C., on August 27, 1892, and entered railway service in 1906 as a messenger on the Rock Island at Kansas City, Mo. He later served as file clerk, tariff clerk and rate clerk at that point. In 1914 he was promoted to chief clerk in the commercial agent's office at St. Joseph, Mo., and in 1915 he returned to Kansas

Ephraim Rigg

City as a rate clerk. Mr. Rigg was advanced to acting chief clerk in 1918 and to chief clerk in 1920. In 1925 he was promoted to assistant general freight agent, with headquarters at Chicago, and in 1935, to general freight agent. He was appointed a member of the Western Trunk Line Standing Rate Committee at Chicago in May, 1940, and in October of that year he became assistant general freight traffic manager of the Rock Island at Chicago. Mr. Rigg was further advanced in 1944 to assistant freight traffic officer, the position he held at the time of his recent promotion.

Frank W. Werner, general agent of the Chicago, Burlington & Quincy at Peoria, Ill., has been appointed assistant fuel traffic manager, with headquarters at Chicago.

The Northern Pacific has established traffic offices in Omaha, Neb., and Atlanta, Ga., with **W. D. Miller**, commercial agent at Kansas City, Mo., as general agent at Omaha and **John A. Marshall**, southeastern agent, promoted to general agent at Atlanta.

C. T. Finley, district traffic representative of the Chicago & Eastern Illinois, has been appointed general agent, with headquarters as before at Minneapolis, Minn., succeeding **G. H. Nourse**, who has been transferred to Jacksonville, Fla.

S. B. Mitchell, who has been a member of the Standing Rate Committee of the Southern Freight Association at Atlanta, Ga., for the last 28 years, has retired at his own request and because of ill health. Mr. Mitchell's service with Southern carriers covers a period of nearly 52 years.

A. J. Andre, trainmaster of the Bessemer & Lake Erie, has been promoted to chief trainmaster at Albion, Pa. **E. T. Leehan**, assistant trainmaster, has been appointed trainmaster at Albion. Mr. Leehan will continue to have supervision over the assignment of conductors, trainmen, yardmen, enginemen, firemen and hostlers.

Ralph H. Gauker has been appointed district passenger agent of the Seaboard Air Line at Washington, D. C., succeeding **E. F. Waldrop, Jr.**, promoted.

ENGINEERING and SIGNALING

Frank R. Paisley, whose promotion to chief engineer of the Pittsburgh & Lake Erie at Pittsburgh, Pa., was reported in *Railway Age* of January 17, was born at Beaver Falls, Pa., on December 29, 1889. After attending Carnegie Institute of Technology, Mr. Paisley entered the service of the P. & L. E.

Frank R. Paisley

on August 23, 1911, and served successively as chainman, rodman and transitman until October 16, 1922, then becoming inspecting engineer and engineering assistant. On January 15, 1935,

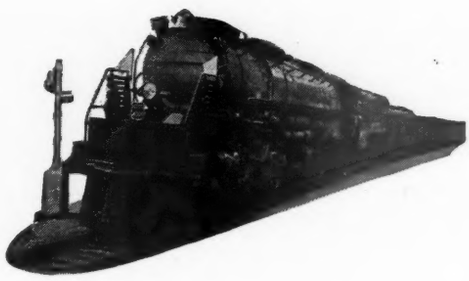
News Department continued on next left-hand page

DOLLARS

SLIP

AWAY

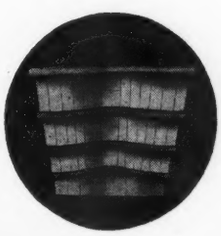
when a steam locomotive operates without a full brick arch in its firebox, because it is not getting full value from the tons of coal it burns.



The expense of maintaining the arch in proper condition at all times is negligible compared with the resulting gain in heating efficiency and fuel economy.

And to secure the utmost effectiveness from the fuel consumed, there is a specific design of Security Brick Arch for each class of locomotive.

HARBISON-WALKER REFRACTORIES CO.
Refractories Specialists



AMERICAN ARCH CO. INC.
60 East 42nd Street, New York 17, N. Y.
Locomotive Combustion Specialists

Mr. Paisley was appointed engineer maintenance of way and on October 1, 1942, he became assistant chief engineer at Pittsburgh, which position he held until his recent promotion to chief engineer.

W. E. Fuhr, assistant division engineer of the Chicago, Milwaukee, St. Paul & Pacific at Mason City, Iowa, has been appointed division engineer at Ottumwa, Iowa, succeeding **J. W. McReynolds,** who has resigned.

F. W. Creedle, division engineer, Wisconsin division, of the Chicago & North Western, with headquarters at Chicago, has been promoted to assistant engineer maintenance of way, with the same headquarters, succeeding **C. E. Miller,** who has retired. **W. H. Huffman,** division engineer of the Peninsula division, with headquarters at Escanaba, Mich., has been transferred to the Wisconsin division to succeed Mr. Creedle. **B. G. Packard,** acting division engineer of the Black Hills division at Chadron, Neb., succeeds Mr. Huffman as division engineer of the Peninsula division. **William Wilbur,** assistant engineer of the Galena division, with headquarters at Chicago, becomes acting division engineer at Chadron.

MECHANICAL

William H. McAmis, whose promotion to superintendent of motive power of the Chicago & North Western, at Chicago, was reported in *Railway Age* of December 6, 1947, was born on January 20, 1902, at Montgomery, Ala. Mr. McAmis began his railroad career as an apprentice machinist with the Central of Georgia in 1917, later serving with the Gulf, Mobile & Northern (now Gulf, Mobile & Ohio) and the

William H. McAmis

Missouri Pacific. Joining the latter road in 1920, Mr. McAmis held positions successively as machinist at Gurdon, Ark., and night roundhouse foreman at Newport, Ark., Texarkana, and Poplar Bluff, Mo. He advanced to general foreman on the M. P. at Poplar Bluff in 1943, and in the following year he was appointed chief mechanical inspector of the C. & N. W., which position he held at the time of his new appointment.

Silas J. Fuller, whose promotion to mechanical engineer of the St. Louis Southwestern, with headquarters at Pine Bluff, Ark., was reported in *Railway Age* of January 17, was born on December 25, 1894, at Denison, Tex. Mr. Fuller attended elementary and high school in his home town and received his higher education in mechanical engineering from the International Correspondence Schools. He began his railroad career in 1911 as a machinist apprentice with the Missouri, Kansas & Texas (now Missouri-Kansas-Texas), and entered the road's mechanical engineering department as a draftsman at

Silas J. Fuller

Denison in 1914. Following military service during World War I, Mr. Fuller returned to the Katy as a mechanical draftsman at Parsons, Kan., in 1919. Shortly thereafter he joined the Kansas City Southern as mechanical draftsman, transferring in that position to the Cotton Belt in 1922. He was appointed general car foreman at Pine Bluff in 1939 and assistant mechanical engineer in 1942. Mr. Fuller held the latter position at the time of his recent promotion.

Frank J. Jumper, whose retirement as general mechanical engineer of the Union Pacific, at Omaha, Neb., was reported in the *Railway Age* of January 17, was born at Terre Haute, Ind., on August 1, 1877, and received a bachelor of science degree in electrical engineering at Rose Polytechnic Institute at Terre Haute. Mr. Jumper joined the U. P. in 1905 as assistant mechanical engineer. In 1909 he left the road to become a mechanical engineer with the McKeen Motor Car Company in Omaha, returning to the U. P. in 1920 as general manager of the motor car department. During the subsequent years he was chief draftsman, special engineer of inspection, engineer of inspection, assistant general mechanical engineer and acting general mechanical engineer. In December, 1937, he was promoted to general mechanical engineer, the position he held at the time of his retirement.

Charles A. Nicholson, whose retirement as assistant superintendent of motive power of the St. Louis Southwestern, at Pine Bluff, Ark., was reported in the *Railway Age* of January 17, was born at Litchfield, Ill., on August 1, 1877. He entered railroad service in 1891 as a machinist apprentice on the Wabash at Moberly, Mo., and subsequently served as shop clerk and car foreman. In 1898 he joined the Fremont, Elkhorn & Missouri Valley (now Chicago & North Western) as a brakeman at Chadron, Neb. He became a carman in 1899, and later chief clerk to the master mechanic of the Kansas City Southern at Shreveport, La. In 1901 he was employed by the Missouri Pacific at St. Louis, Mo., and subsequently advanced to chief clerk to general master mechanic. Mr. Nicholson joined the St. Louis Southwestern in 1917 as chief clerk to superintendent of motive power at Pine Bluff, and in 1923 was advanced to assistant to superintendent of motive power. He was further promoted in 1943 to assistant superintendent of motive power, the position he held at the time of his retirement.

PURCHASES and STORES

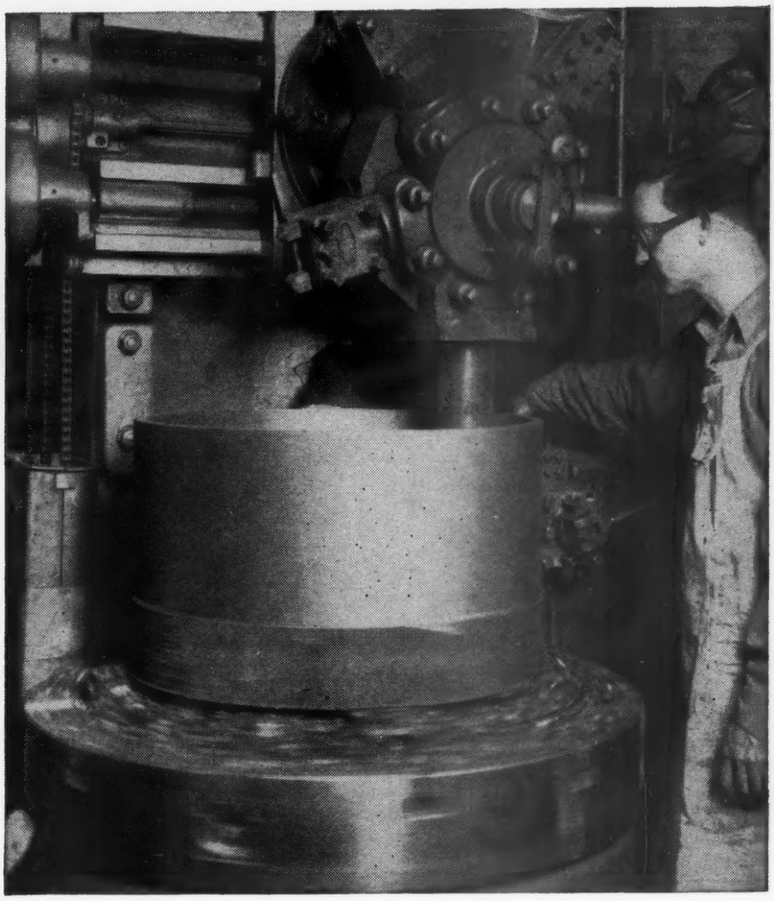
Walter R. Owen, whose re-appointment to the position of purchasing agent of the reorganized Chicago, Rock Island & Pacific, at Chicago, was reported in *Railway Age* of January 17, was born in Lima, Ohio, on February 11, 1881, and attended the Chicago Manual

Walter R. Owen

Training School and Lewis Institute. He entered railway service in 1898 as a clerk in the purchasing department of the Rock Island, and in 1906 he was promoted to chief clerk. In 1911 Mr. Owen was advanced to assistant purchasing agent, and in 1939 he became purchasing agent, the position to which he has been re-appointed.

News Department continued on next left-hand page

HSGI



Take a TIP from the man on the MACHINE

Hunt-Spiller are exclusive railroad sales representatives for Double Seal Piston Rings made for Diesel and other services. Double Seal rings are cast from Hunt-Spiller *Air Furnace* Gun Iron.

The laboratory scientist can tell you if an iron is good, but for a final practical opinion you must talk to the man who turns the casting into a finished part. Such things as grain, structure, and carbon distribution are revealed by photomicrographs, yet you have to poke around the shop to get their real meaning. That is why we say; stop, watch, ask questions the next time you see an HSGI casting chucked on a lathe. The operator will tell you that HSGI is easy to machine, and one reason is that there is less metal to remove. That means faster and therefore cheaper finishing. This, among many other advantages, has caused the greater majority of American railroads to use Hunt-Spiller Gun Iron in vital locomotive parts for thirty-five years or more.

HUNT SPILLER GUN IRON HSGI *AIR FURNACE PROCESS*

HUNT-SPILLER MFG. CORPORATION

N. C. RAYMOND, *President* E. J. FULLER, *Vice-Pres. & Gen. Mgr.*

383 Dorchester Ave. ★ South Boston 27, Mass.

Canadian Representatives: Joseph Robb & Co., Ltd., 4050 Namur St., Montreal 16, P. Q.

Export Agents:
International Rwy. Supply Co., 30 Church Street, New York 7. N. Y.

Cylinder Bushings	Crosshead Shoes	Dunbar Sectional Type Packing
Cylinder Packing Rings	Hub Liners	Duplex Sectional Type Packing
Pistons or Piston Bull Rings	Shoes and Wedges	for Cylinders and Valves
Valve Bushings	Floating Rod Bushings	(Duplex Springs for Above
Valve Packing Rings	Light Weight Valves	Sectional Packing)
Valve Bull Rings	Cylinder Liners and Pistons	Cylinder Snap Rings
	for Diesel Service	Valve Rings, All Shapes

J. C. Kirk, assistant purchasing agent of the Chicago, Rock Island & Pacific, at Chicago, has been promoted to general purchasing agent there, succeeding **Walter R. Owen**, who has retired. **E. F. Lofvander**, a buyer for the railroad, has been appointed assistant general purchasing agent and **E. G. Roberts**, general storekeeper at Silvis, Ill., has been promoted to stores manager, with headquarters at Chicago.

J. R. Beal has been appointed to the newly created position of acting chief fuel inspector of the Gulf, Colorado & Santa Fe, with headquarters at Fort Worth, Tex. **F. A. Redmond**, manager of fuel oil properties at Fort Worth, has retired.

SPECIAL

Walter A. Dietze, whose promotion to public relations officer of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of January 10, began his railroad career in the Milwaukee's freight claim department in 1911. He later served successively as traveling representative for the road's claim prevention bureau, secretary to the operations vice-president and secretary to the president. Mr. Dietze became chief clerk to the president in 1925, which position he held at the time of his recent promotion.

Walter A. Dietze

F. H. Johnson, whose retirement as public relations officer of the Chicago, Milwaukee, St. Paul & Pacific, at Chicago, was reported in *Railway Age* of January 10, was born at Burlington, Iowa, and began his railroad career in 1896 as a stenographer with the Chicago, Burlington & Quincy in his home town. He subsequently held various clerical position with the Burlington, and in 1917 joined the Milwaukee as office assistant to the president at Chicago. He was promoted to assistant to the president in 1923 and to executive assistant in 1928. Mr. Johnson had been public relations officer for the road since 1939.

E. H. Fitcher, secretary to the assistant to chief mechanical officer of the Chesapeake & Ohio at Richmond, Va., has been appointed assistant director of labor relations. Born in South Boston, Va., Mr. Fitcher entered the service of the C. & O. in 1920 as secretary to superintendent of motive power, being transferred later to the office of the assistant to chief mechanical officer.

John J. Boylan, superintendent of claims of the Railway Express Agency at Chicago, has been appointed superintendent of organization at that point. He is succeeded by **James C. Van Nordstrand**, superintendent of the Southern Nebraska-Iowa division at Lincoln, Neb. **Willis E. Wright** has been appointed superintendent of the Western Texas division at San Antonio, Tex., succeeding **Edgar L. Head**, whose transfer to Dallas, Tex., was reported in the *Railway Age* of January 31.

Bertrand A. McDonald, assistant superintendent of the Missouri-Kansas-Texas' Eastern district, has been appointed to the newly-created position of superintendent of rules, with headquarters at Dallas, Tex.

OBITUARY

Albert Clinton Mann, vice-president—purchases and stores of the Illinois Central at Chicago, died in his sleep at his home in Chicago on January 31. Mr. Mann, 66, had been vice-president of the I. C. for 27 years and an officer of the railroad for 35 years. He served in government transportation posts during both World Wars, having been a member of the Southern Region Purchasing Committee of the United States Railroad Administration during World War I and chairman of the Transportation Equipment Division of the War Production Board during World War II.

Albert Clinton Mann

Mr. Mann was born in Effingham, Ill., in 1881, and received his higher education at business college in Decatur, Ill., and at the Alexander Hamilton Institute. He joined the I. C. in 1900 as a stenographer in the commercial agent's office at St. Louis, Mo., and after advancing through several clerical positions at St. Louis he went to Chicago in 1904 as secretary to the purchasing agent. He was appointed chief clerk in 1907 and assistant purchasing agent in 1912. Following service with the U. S. R. A. during World War I, he became vice-president of the American International Steel Company at New York. He returned to the I. C. in 1920 as vice-president in charge of purchases and stores, the post he held at the time of his death.

Dean F. Willey, operating vice-president of the New York, New Haven & Hartford at New Haven, Conn., died on January 23 in his 51st year. Mr. Willey was born at Manchester, N. H., on August 5, 1896, and attended Phillips Exeter Academy and Massachusetts Institute of Technology. Entering railroad service in June, 1920, with the New Haven, he served until April, 1923, as assitant engineer, test department, then becoming general material inspector. He was appointed mechanical inspector in October, 1923, foreman mechanical inspector in November, 1923; general foreman, Dover St. enginehouse in July, 1924; assistant to superintendent of shops at Readville, Mass., in September, 1925, and special mechanical assistant in May, 1930. Mr. Willey was appointed mechanical superintendent in January, 1937; general mechanical superintendent in April, 1941; assistant general manager in November, 1944, and assistant vice-president at New Haven in June, 1946. He became operating vice-president in November, 1946.

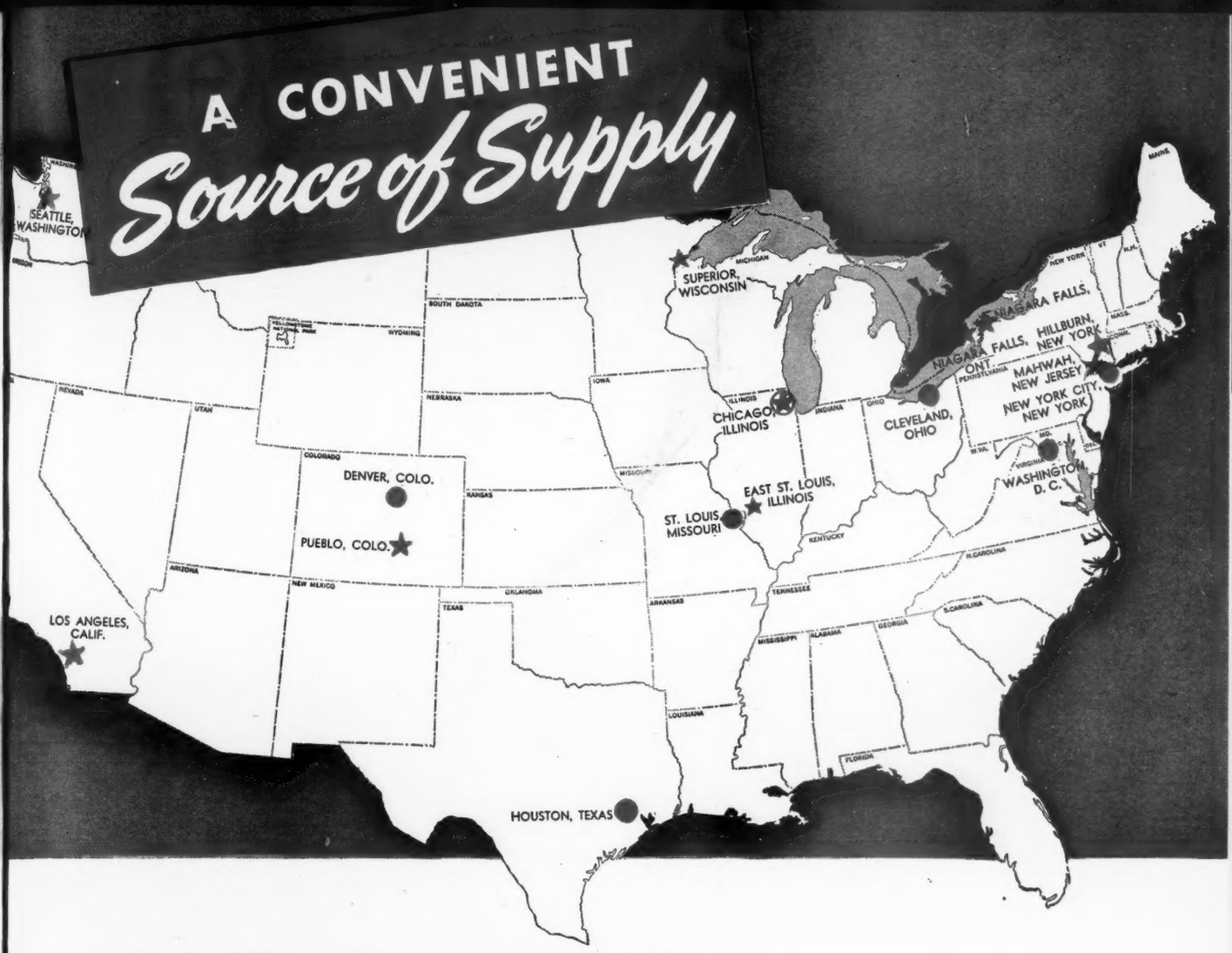
Dean F. Willey

W. J. McMahan, assistant superintendent of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Seattle, Wash., died recently.

Grove Cooke Kennedy, assistant to the general manager of the Missouri Pacific Lines in Texas and Louisiana, died at Houston, Tex., on January 22.

News Department continued on next left-hand page

A CONVENIENT *Source of Supply*



FOR YOUR FROGS, SWITCHES AND CROSSINGS

America's Most Complete Line of Track Specialties

- DEPTH HARDENED MANGANESE STEEL CROSSINGS
- MANGANESE STEEL GUARD RAILS
- VERTICAL SWITCH RODS
- AUTOMATIC SWITCH STANDS
- SAMSON SWITCH POINTS
- RAIL AND FLANGE LUBRICATORS

RACOR TRADE MARK REGISTERED

Ramapo's facilities, strategically located from coast to coast, are ready to serve the needs of America's railroads.

To help better serve the needs of the railroad industry, American Brake Shoe's modern research laboratories ★ are constantly used by Ramapo Ajax Division for the development, test and analysis of materials and devices. Here a continuous study against the forces of wear, impact and strain is conducted with the aim of producing and offering America's railroads the best material and equipment for the specific job. Any of the plants ★ (all have sales offices) or sales offices ● nearest you, shown in the map above, are ready to serve and help you with any of your trackwork problems.

AMERICAN Brake Shoe COMPANY

"Use RACOR Special Trackwork where stress and wear are greatest"

RAMAPO AJAX DIVISION

332 So. Michigan Ave., Chicago 4, Illinois

ONLY RAMAPO HAS PLANTS FROM COAST TO COAST TO EXPEDITE AMERICA'S RAILROAD NEEDS

NEW YORK, N. Y. • HILLBURN, N. Y. • NIAGARA FALLS, N. Y. • WASHINGTON, D. C. • ST. LOUIS, MO. • EAST ST. LOUIS, ILL. • SUPERIOR, WIS.
DENVER, COLO. • PUEBLO, COLO. • LOS ANGELES, CALIF. • HOUSTON, TEXAS • SEATTLE, WASHINGTON, • CLEVELAND, OHIO
CANADIAN RAMAPO IRON WORKS, LTD. NIAGARA FALLS, ONT.

OPERATING REVENUES AND OPERATING EXPENSES OF CLASS I STEAM RAILWAY

Compiled from 127 monthly reports of revenues and expenses representing 131 Class I steam railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF NOVEMBER 1947 AND 1946

Item	United States		Eastern District		Southern District		Western District	
	1947	1946	1947	1946	1947	1946	1947	1946
Miles of road operated at close of month	227,052	227,281	53,723	53,745	46,162	46,240	127,167	127,296
Revenues:								
Freight	$625,240,733	$522,887,607	$237,933,601	$202,514,434	$128,319,556	$105,557,348	$258,987,576	$214,815,825
Passenger	73,660,656	85,511,753	38,482,052	41,159,553	10,896,017	14,518,052	24,282,587	29,834,148
Mail	13,271,434	11,238,875	4,402,328	3,914,666	2,307,585	2,069,941	6,561,521	5,254,268
Express	11,129,601	8,335,536	3,314,165	1,006,922	1,948,346	1,387,998	5,867,090	5,940,616
All other operating revenues	32,021,750	30,273,007	14,232,386	13,827,990	5,278,204	4,286,880	12,511,160	12,158,137
Railway operating revenues	755,324,174	658,246,778	298,364,532	262,423,565	148,749,708	127,820,219	308,209,934	268,002,994
Expenses:								
Maintenance of way and structures	100,685,611	93,440,691	35,955,994	34,634,091	22,218,014	19,879,735	42,511,603	38,926,865
Depreciation	10,279,259	10,129,876	4,386,211	4,354,621	1,758,694	1,716,461	4,134,354	4,058,794
Retirements	1,455,027	2,066,392	317,610	530,681	351,563	103,701	785,854	1,432,010
Deferred maintenance	*789,338	*398,140	*39,958	*136,686	*446,696	*6,687	*302,684	*254,767
Amortization of defense projects	127,474	66,191	*1,151	*23,646	55,242	20,810	73,383	69,027
Equalization	2,108,071	*2,241,603	1,355,213	*1,127,422	481,461	*208,364	271,397	*905,817
All other	87,505,118	83,817,975	29,938,069	31,036,543	20,017,750	18,253,814	37,549,299	34,527,618
Maintenance of equipment	134,493,391	123,379,627	57,817,721	53,282,946	26,601,205	23,864,788	50,074,465	46,231,893
Depreciation	19,628,688	18,525,380	7,741,368	7,431,085	4,376,010	4,049,929	7,511,310	7,044,366
Retirements	26,204	*24,200	961	*7,128	*1,435	*7,346	26,678	*9,726
Deferred maintenance and major repairs	*191,855	*345,831	100,000	*1,493	*64,537	*85,224	*227,318	*259,114
Amortization of defense projects	1,139,503	1,169,101	452,260	482,526	239,062	221,054	448,181	465,521
Equalization	*78,004	*147,057	36,703	14,152	*113,687	*174,954	*1,020	13,745
All other	113,968,855	104,202,234	49,486,429	45,363,804	22,165,792	19,861,329	42,316,634	38,977,101
Traffic	15,259,784	13,794,286	5,302,119	4,726,345	3,305,865	2,867,231	6,651,800	6,200,710
Transportation—Rail line	312,983,647	275,818,060	134,399,128	118,647,630	57,533,376	49,980,927	121,051,143	107,189,503
Miscellaneous operations	10,659,798	10,807,150	4,081,396	3,944,554	1,484,540	1,411,218	5,093,862	5,451,378
General	21,232,269	18,900,488	8,097,856	7,212,061	4,696,409	4,093,768	8,438,004	7,594,659
Railway operating expenses	595,314,500	536,140,302	245,654,214	222,447,627	115,839,409	102,097,667	233,820,877	211,595,008
Net revenue from railway operations	160,009,674	122,106,476	52,710,318	39,975,938	32,910,299	25,722,552	74,389,057	56,407,986
Railway tax accruals	80,116,364	44,987,037	26,884,599	16,465,095	18,306,906	11,382,229	34,924,859	17,139,713
Pay-roll taxes	30,477,897	21,245,396	12,665,744	8,913,565	5,927,078	4,054,320	11,885,075	8,277,511
Federal income taxes	24,558,624	1,711,353	5,186,338	*1,012,874	6,961,517	2,597,743	12,410,769	126,484
All other taxes	25,079,843	22,030,288	9,032,517	8,564,404	5,418,311	4,730,166	10,629,015	8,735,718
Railway operating income	79,893,310	77,119,439	25,825,719	23,510,843	14,603,393	14,340,323	39,464,198	39,268,273
Equipment rents—Dr. balance	10,673,104	9,517,709	5,074,156	4,803,999	*1,499,370	*770,704	7,098,318	5,484,414
Joint facility rent—Dr. balance	3,642,719	3,479,516	1,667,437	1,675,581	593,718	507,427	1,381,564	1,296,508
Net railway operating income	65,577,487	64,122,214	19,084,126	17,031,263	15,509,045	14,603,600	30,984,316	32,487,351
Ratio of expenses to revenues (per cent)	78.8	81.4	82.3	84.8	77.9	79.9	75.9	79.0

FOR THE ELEVEN MONTHS ENDED WITH NOVEMBER 1947 AND 1946

Item	United States		Eastern District		Southern District		Western District	
	1947	1946	1947	1946	1947	1946	1947	1946
Miles of road operated at close of month	227,172	227,700	53,730	53,800	46,183	46,270	127,259	127,630
Revenues:								
Freight	$6,413,157,434	$5,293,328,028	$2,431,201,116	$1,997,910,497	$1,330,646,622	$1,107,791,627	$2,651,309,696	$2,187,625,904
Passenger	873,860,718	1,166,473,146	440,103,799	531,396,014	140,092,256	197,618,622	293,664,663	437,458,510
Mail	125,521,003	115,368,034	45,279,157	40,493,825	22,662,014	21,161,351	57,579,832	53,712,858
Express	103,035,484	83,651,843	30,095,098	7,340,180	18,266,337	13,555,911	54,674,049	62,755,752
All other operating revenues	361,691,489	331,927,243	159,402,779	151,017,694	61,112,470	47,732,633	141,176,240	133,176,916
Railway operating revenues	7,877,266,128	†6,990,748,294	3,106,081,949	2,728,158,210	1,572,779,699	1,387,860,144	3,198,404,480	2,874,729,940
Expenses:								
Maintenance of way and structures	1,107,783,860	1,058,589,752	405,115,445	383,650,912	241,174,646	227,162,411	461,493,769	447,776,429
Depreciation	111,763,301	110,381,284	47,764,263	47,316,307	19,140,910	18,703,034	44,858,128	44,361,943
Retirements	12,428,981	10,578,804	2,698,603	2,754,138	2,566,455	1,355,370	7,163,923	6,469,296
Deferred maintenance	*6,006,521	*5,261,484	*278,342	*1,362,963	*954,724	41,657	*4,773,455	*3,940,178
Amortization of defense projects	1,228,193	397,690	72,382	38,561	404,357	142,424	751,454	216,705
Equalization	439,189	2,819,386	*797,295	542,890	674,578	1,708,894	561,906	567,602
All other	987,930,717	939,674,072	355,655,834	334,361,979	219,343,070	205,211,032	412,931,813	400,101,061
Maintenance of equipment	1,419,242,453	1,344,633,842	607,880,739	566,598,068	285,822,638	260,286,081	525,539,076	517,749,693
Depreciation	211,330,097	202,647,718	84,691,323	82,752,856	46,725,903	43,609,895	79,912,871	76,284,967
Retirements	*455,856	*366,304	*68,120	*112,826	*108,479	*117,636	*279,257	*135,842
Deferred maintenance and major repairs	*3,838,325	*3,349,598	347,180	*193,217	*1,455,541	*495,457	*2,729,964	*2,660,924
Amortization of defense projects	13,551,417	8,906,418	5,066,150	3,799,653	2,718,931	1,496,855	5,766,336	3,609,910
Equalization	923,870	425,117	87,596	*4,195	582,931	399,262	253,343	30,050
All other	1,197,731,250	1,136,370,491	517,756,610	480,355,797	237,358,893	215,393,162	442,615,747	440,621,532
Traffic	160,266,385	150,637,860	55,481,115	53,746,741	34,348,379	30,375,954	70,436,891	66,515,165
Transportation—Rail line	3,139,030,470	2,924,702,890	1,357,249,462	1,254,421,185	581,700,394	537,250,805	1,200,080,614	1,133,030,900
Miscellaneous operations	117,292,533	118,107,606	43,770,423	44,272,318	17,073,057	16,548,560	56,449,053	57,286,728
General	222,296,556	211,685,958	85,701,686	81,809,367	48,435,789	45,168,161	88,159,081	84,708,430
Railway operating expenses	6,165,912,257	5,808,357,908	2,555,198,870	2,384,498,591	1,208,554,903	1,116,791,972	2,402,158,484	2,307,067,345
Net revenue from railway operations	1,711,353,871	1,182,390,386	550,883,079	343,659,619	364,224,796	271,068,172	796,245,996	567,662,595
Railway tax accruals	855,387,914	527,168,215	284,648,044	172,358,779	194,957,975	138,574,949	375,781,895	216,234,487
Pay-roll taxes	322,167,550	233,282,916	134,608,020	96,398,277	62,824,232	44,722,228	124,735,298	92,162,411
Federal income taxes	273,452,193	53,928,301	52,088,669	*17,818,846	78,231,392	43,476,158	143,132,132	28,270,989
All other taxes	259,768,171	239,956,998	97,951,355	93,779,348	53,902,351	50,376,563	107,914,465	95,801,087
Railway operating income	855,965,957	655,222,171	266,235,035	171,300,840	169,266,821	132,493,223	420,464,101	351,428,108
Equipment rents—Dr. balance	117,213,296	103,466,161	52,932,868	45,662,612	*8,043,487	*4,029,734	72,323,915	61,833,283
Joint facility rent—Dr. balance	37,918,293	35,681,495	18,291,389	17,648,581	5,864,965	5,291,006	13,761,939	12,741,908
Net railway operating income	700,834,368	516,074,515	195,010,778	107,989,647	171,445,343	131,231,951	334,378,247	276,852,917
Ratio of expenses to revenues (per cent)	78.3	83.1	82.3	87.4	76.8	80.5	75.1	80.3

* Decrease, deficit, or other reverse item.

† Railway operating revenues are after deduction of $4,595,788 for the eleven months ended with November 1946, to create a reserve for land grant deductions in dispute.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

GENERAL NEWS

(*Continued from page 68*)

Senate Agrees to Vote February 27 on Proposed St. Lawrence Seaway

The Senate has agreed to vote on February 27 on S. J. Res. 111, which calls for the approval of the United States-Canada agreement for construction of the St. Lawrence seaway and power project. Debate on the resolution got under way in the Senate last week. The resolution, introduced by Senator Vandenberg, Republican of Michigan, for himself and a bipartisan group of 15 other senators, includes provisions purporting to make the project "self-liquidating." Approval of the resolution also has been urged by President Truman.

Truman Would Ban "Jim Crow" Practices in Interstate Travel

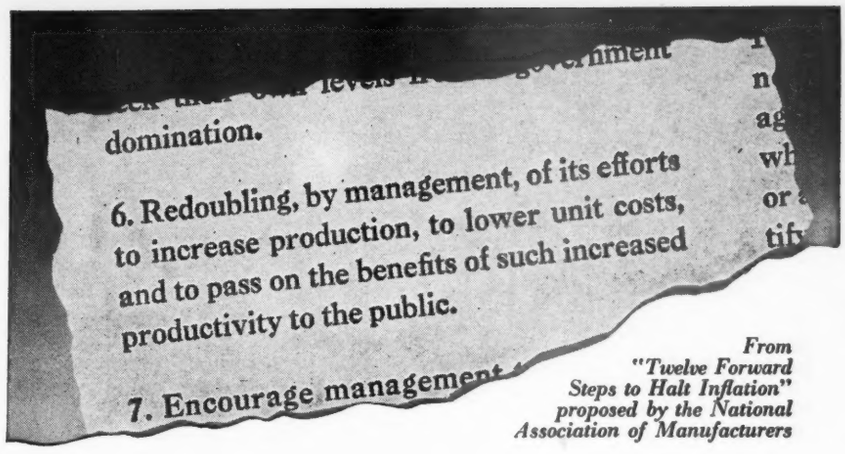
Legislation to establish a Fair Employment Practice Commission to prevent discrimination in employment and to prohibit the segregation of passengers using interstate transportation facilities was recommended in a special "civil rights" message which Congress received this week from President Truman.

With respect to interstate transportation, the message urged that all channels of interstate commerce should be opened to all Americans on a basis of complete equality. "The Supreme Court has recently declared unconstitutional state laws requiring segregation on public carriers in interstate travel," the President's statement continued. "Company regulations must not be allowed to replace unconstitutional state laws. I urge the Congress to prohibit discrimination and segregation in the use of interstate transportation facilities, by both public officers and the employees of private companies."

Sees Improved Outlook for Rail Transport of Farm Products

Serious threats to the orderly movement of farm products to markets still exist, it is asserted in the railroad section of the latest issue of "The Marketing and Transportation Situation," published by the Bureau of Agricultural Economics of the Department of Agriculture. Although it contended that the railroads probably will be unable completely to meet 1948 traffic demands, the bureau said that the carriers should be somewhat "less handicapped" than in 1947 as "they make increasing headway against equipment needs."

The bureau also commented that the car shortage situation received "deserved attention" in 1947 by all groups concerned. At the same time, however, it said that because the rehabilitation and replacement of worn-out equipment have not kept pace with the increased transportation burden placed upon the railroads, every effort must be made to utilize available facilities and capacity as fully as possible.


domination.
6. Redoubling, by management, of its efforts to increase production, to lower unit costs, and to pass on the benefits of such increased productivity to the public.
7. Encourage management

From "Twelve Forward Steps to Halt Inflation" proposed by the National Association of Manufacturers

Here, indeed, is an able, statesmanlike proposal . . .

the N.A.M.'s 12-point program; and Step 6 in particular is a statement of both valid duty and brilliant opportunity—a call not merely to plan wisely but to "do something about it!"

There's a good tool at hand—designed for the job, proved by its distinguished record for speeding production, breaking bottlenecks, cutting costs to a minimum: the Clark Method of material handling.

Practically every business that handles materials has many opportunities for rich savings that easily can be won by planned use of Clark machines.

Today, alert management in thousands of businesses is diligently seeking new ways to use Clark machines—

- **recognizing each new application as an additional opportunity to speed production and to cut production cost; benefits of increased productivity that can instantly be passed along to the public.**

Look into this better way — with its many extraordinary opportunities for big savings. Clark can help you—will bring to you, at no cost or obligation, all this company's unequalled experience in material handling. Write us.

CLARK GAS AND ELECTRIC POWERED **FORK TRUCKS**
AND INDUSTRIAL TOWING TRACTORS

CLARK EQUIPMENT COMPANY, TRUCTRACTOR DIVISION, BATTLE CREEK 24, MICH.
REPRESENTATIVES IN PRINCIPAL CITIES THROUGHOUT THE WORLD

THIS LITTLE BOOK MAY SAVE YOU BIG PRODUCTION MONEY!

- Tells how you can save from 10¢ to 20¢ a pound on high speed steels and get better results!
- Gives actual shop tests and comparisons!
- Practical data on heat treatment!
- Tells you how manufacturers are cutting production costs!

MOLYBDIC OXIDE — BRIQUETTED OR CANNED • FERROMOLYBDENUM • "CALCIUM MOLYBDATE" • CLIMAX FURNISHES AUTHORITATIVE ENGINEERING DATA ON MOLYBDENUM APPLICATIONS.

Climax Molybdenum Company
500 Fifth Avenue • New York City

MAIL COUPON TODAY!

CLIMAX MOLYBDENUM COMPANY RA-2
500 Fifth Avenue, New York 18, N. Y.

Please send me a copy of your free booklet

Name.....

Company.....

Address.....

Modify Plan for Pooling Refrigeration Earnings

Division 3 of the Interstate Commerce Commission has approved a modification of the pooling plan for certain refrigeration service earnings which was established, effective January 1, 1942, by 36 roads and now has 40 participants. The modification provides that the net gain or loss resulting from the refrigeration services shall be distributed among only those pool members which participated in the haul of the traffic on a loaded car-mile basis.

Under the original provision, the net gains or losses were distributed among all pool members. Changes in the origin and volume of the traffic made that arrangement unsatisfactory, the commission's report said. The report was in the No. 29008 proceeding.

Baggage Officers Meet at Houston

Prompt and careful handling of baggage, courtesy toward passengers and standardization of luggage were among the subjects discussed by some 65 railroad and railroad station company baggage officers at a three-day session in Houston, Tex., January 21-23, inclusive. The meeting was that of the American Association of Baggage Traffic Managers, originally scheduled to be held October 8, 9 and 10, 1947, but which was postponed so that members could participate in the mail-rate hearings underway in Washington at that time.

The meeting consisted primarily of committee discussions and reports, with no addresses scheduled. Presiding at the gathering was C. F. Rank, manager of mail, express, baggage and milk departments of the Chicago, Milwaukee, St. Paul & Pacific, who was also elected president for 1948. C. M. Lyon, manager of mail, express, baggage and milk traffic of the Delaware, Lackawanna & Western, was elected vice-president, and E. P. Soebbing, assistant general passenger agent of the Wabash, was re-elected secretary-treasurer. The association's next meeting will be held at Miami, Fla., on October 20, 21 and 22, 1948.

Industrial Exhibit Train to Make Two-Year Tour of Mexico

A 33-car industrial exhibit train sponsored by the Mexican government is scheduled to depart from Mexico City February 29 on a two-year tour of the country to demonstrate to the Mexican people what industrial progress has taken place in Mexico during the past few years. A total of 12,000,000 persons are expected to visit the train, which will include its own radio station, a car containing a 200-kw. power plant, 22 exhibition cars equipped with special aluminum show-cases and 11 flat cars for agricultural and carnival equipment.

The Mexican government has announced that the "Industrial Caravan" will cost over 2,500,000 pesos, and forms part of a program to make the country "industrialization conscious" and to promote the sale of Mexican products. The train will remain in each town on an average of three to four days, and will be open to retailers from 10 a. m. to 1 p. m. and to the public from 1 p. m. to 11 p. m.

December, 1947, Truck Traffic

Motor carriers reporting to the American Trucking Associations transported in December, 1947, 2,123,152 tons of freight, an increase of 2.5 per cent over the 2,071,830 tons transported the previous month, and an increase of 11.3 per cent over the 1,908,255 tons hauled in December, 1946. The A. T. A. index figure for last December, based on the 1938-40 average monthly tonnage of the reporting carriers, was 216, while the index figure of 206 for the entire year set an all-time record. The latter figure compares to the former high of 186, established in 1943.

The December, 1947, figures, according to the A. T. A., are based on comparable reports from 235 carriers in 40 states. Carriers in the Eastern district reported tonnage increases of 3.2 per cent over November, 1947, and 10.1 per cent over December, 1946; carriers in the Southern region reported respective incrases of 1.1 per cent and 16.3 per cent; and carriers in the Western district reported respective increases of 1.8 per cent and 11.7 per cent.

A. A. R. Board Sets Up Container Committee

The board of directors of the Association of American Railroads, at its regular monthly meeting in Washington, D. C., January 30, authorized the creation of a Container Committee which will receive and consider requests and proposals for changes in container specifications, new specifications for containers and loading rules on fresh fruits and fresh or green vegetables. The committee will consist of the A. A. R. Freight Container Bureau's chief engineer and his two assistants.

It will issue public dockets and hold hearings, and its recommendations for new tariffs or changes in existing tariffs will be reviewed by the chairman of the A. A. R. Freight Loading and Container Section. Recommendations approved by the latter will go to the territorial Traffic Executives Associations.

N. Y. C. Resumes Study of Harmon Passenger Station Improvements

The New York Central has resumed engineering studies, interrupted by the war, which look toward further improvements at its Harmon, N.Y., passenger station, Gustav Metzman, president, announced recently. Pointing out that the road has spent more than $175,000 in recent years on improvements at the station, Mr. Metzman said: "We

employ electric locomotives between New York and Harmon and Diesel-electric and steam locomotives beyond Harmon. The large number of movements which our locomotives must make there, the limited area and other physical restrictions present a most challenging situation."

Pullman Moves to New Offices

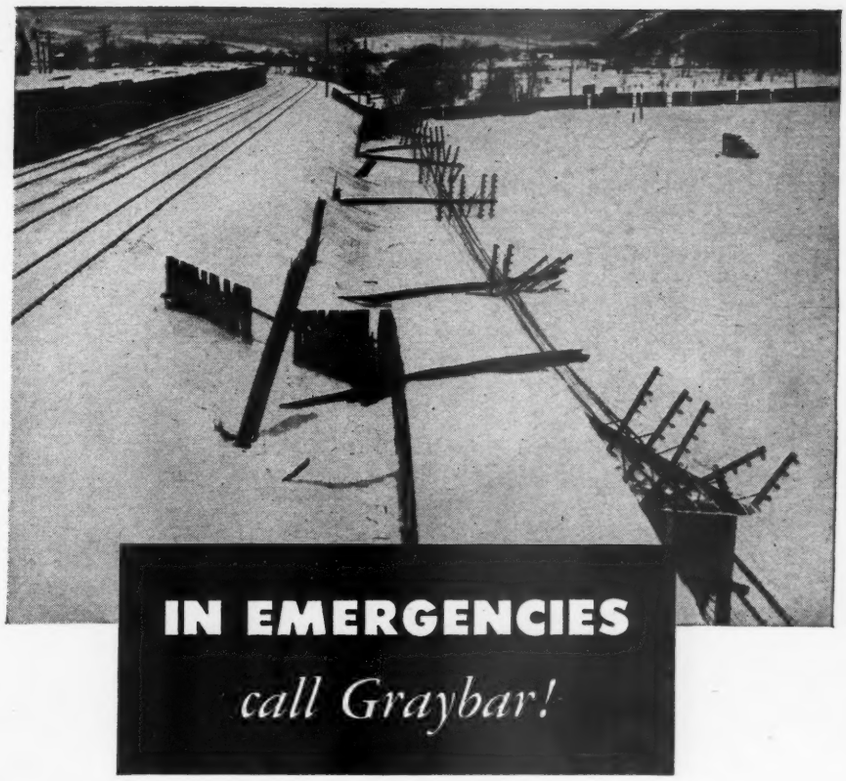
On February 1, all general offices of the Pullman Company in Chicago were moved to the Merchandise Mart, 222 West North Bank Drive, Chicago 54, Ill.

New T. & P. Timetable in Booklet Form; Designed for Easy Reading

The Texas & Pacific has issued a bright new timetable, bound as a booklet and featuring a make-up whereby schedules read down only. The multicolor cover is illustrated, as is a map of the railroad's territory. The map is further illustrated by drawings of subjects symbolic of the areas covered by the T. & P.

THE
TEXAS T AND P PACIFIC
RAILWAY
Texas
Dallas is the 4th largest center in the nation in the manufacture of women's apparel. 1946 Total, $35,000,000.
TIME-TABLES

Double-page booklet style is followed continuously throughout the timetable —with the exception of the map—resulting in compactness and easier handling. In the back of the timetable is a page on which passengers can record their trips and another on which they may write comments, criticisms and suggestions to be mailed to the railroad's public relations department.



IN EMERGENCIES
call Graybar!

When storm, flood, or fire downs your communication lines, Graybar knows you must have replacement items *fast*. Graybar has outstanding facilities for delivering them wherever and whenever you need them.

Our nation-wide network of nearly 100 supply stations (warehouses and offices staffed with experienced personnel) provides broad accessibility to stocks of supplies for railway dispatching and telephone service. Our long-established relationships with select manufacturers assure their extraordinary cooperation in filling extraordinary needs. Our experience in past emergencies gives us the know-how for immediate action and efficient follow-through.

Graybar is ready, too, with prompt service on many of your other electrical needs — lighting, wiring, tools — for indoor or outdoor installations. *Graybar Electric Company, Inc. Executive offices: Graybar Building, New York 17, N. Y.* 4816

OFFICES AND WAREHOUSES IN NEARLY 100 PRINCIPAL CITIES

ANALYSIS of RAILROAD OPERATIONS

By Joseph L. White

Formerly Executive Officer, Office of Defense Transportation

Every railroad officer and analyst will want a copy of the new edition of ANALYSIS OF RAILROAD OPERATIONS. Written by an outstanding authority on the interpretation of railroad statistics, enlarged and illustrated with charts and photographs, it is full of useful information.

Mr. White shows how the operations of a railroad or of any of its divisions or departments are analyzed to determine the causes of increases or decreases in revenues and expenses. He shows how the pertinent factors are picked out to form a basis for sound decisions on future operating policies. In a final chapter a detailed comparative analysis is made of the actual operations of two large roads for a typical year.

FREE EXAMINATION COUPON

Simmons-Boardman Publishing Corporation
30 Church Street, New York 7, N. Y.

Please send me a copy of the Second Edition of ANALYSIS OF RAILROAD OPERATIONS by Joseph L. White, on Ten Days' Free Examination. If satisfactory I will remit the list price of $5.00. Otherwise I will return the book without obligation.

Name .....
Address .....
City ..... State .....
Company ..... Position .....

R.A. 2-7-48

Contents

Introduction—General Principles of Railroad Accounting—The Income Statement—Railway Operating Statistics—Railway Operating Revenues—Statistics of Freight and Passenger Service—Causes of Fluctuations in Operating Revenues—Railway Operating Expenses—Relation of Expenses to Revenues—Maintenance of Way and Structures—Unit Costs of Maintaining Road Property—Maintenance of Equipment—Account 314, Freight Train Cars—Repairs—Unit Costs of Maintaining Equipment—Budgetary Control of Maintenance Expenses—Transportation and Miscellaneous Expenses—Transportation and Miscellaneous Operations—Unit Costs of Operation—Statistics of Utilization of Equipment—Control of Transportation Expenses Through Current Reports—Traffic and General Expenses, Taxes and Rents—Analysis of Actual Operations of Two Class 1 Railways in 1941—Appendices—Index.

2nd. 304 pages, 87 illus., 5 charts, 29 tables, 6 x 9, cloth, $5.00